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THE VOCATIONAL GUIDANCE MAGAZINE

ORGAN OF

The National Vocational Guidance Association

FRED C. SMITH, Editor

Volume VI. November, 1927 Number 2

VOCATIONAL GUIDANCE AT THE GENERAL ELECTRIC
TESTING COLLEGE STUDENTS
EFFECT OF WORKING UPON SCHOOL SUCCESS
AVIATION AS A CAREER
VOCATIONAL GUIDANCE IN A CONTINUATION SCHOOL
HOME PROJECT AND ITS RELATION TO GUIDANCE
PROBLEMS OF RESEARCH IN VOCATIONAL GUIDANCE

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AN ORGANIZATION CONCERNED WITH EDUCATIONAL AND VOCATIONAL GUIDANCE

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FRED C. SMITH, *Editor*

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VOCATIONAL GUIDANCE AT THE WEST LYNN WORKS OF THE GENERAL ELECTRIC COMPANY

R. LAWRENCE MCGUFFIN

Formerly Instructor in the Continuation School of Lynn, Massachusetts

The writer is very greatly indebted to Mr. Johnson O'Connor, psychologist in charge of the psychological laboratory at the West Lynn Works of the General Electric Company, for valuable assistance in the preparation of this article not only by demonstrating the tests herein described and answering innumerable questions, but also for helpful criticism of the manuscript.

At the West Lynn plant of the General Electric Company we have an example of a "heartless corporation" engaging an expert psychologist to give his entire time and that of a corps of assistants to the problem of vocational guidance in so far as it concerns finding the right job for the right person. These workers have worked out a series of "sample jobs" by which to test the abilities (1) of present employees not making good on their jobs and (2) of new employees about to begin work for the company. All the expense of operating a psychological laboratory, of carrying on endless experimentation, and of conducting individual examinations was cheerfully authorized, at the suggestion of Mr. Cox, manager of the West Lynn Works, by the company authorities who have a sufficiently far-reaching vision to realize that by assigning employees to those jobs in which they may make good, they will ultimately save many thousands of dollars annually which have been expended in past years as a result of labor turnover.

The purpose of these sample jobs is, as has been suggested, to find, with a minimum expenditure of time, the proper job for each individual. At the present writing about eight sample jobs have been devised, the results of which are approximately satisfactory. Only seven, however, fulfill both of their desired functions: (1) to measure present ability and (2) to predict the

examined individual's success or failure in a certain job.

The first two of these sample jobs test the candidate's ability to think mechanically. They do not test his ability to do certain more or less automatic acts, but rather demonstrate his ability (or lack of it) for machine "set up work", that is, not his ability merely to run a lathe but rather his ability to put a lathe together if given the pieces. These sample jobs are given to would-be engineers, designers, and draftsmen. The first job is to put together a block of wood which has been sawn lengthwise into nine irregularly shaped pieces. The block is first shown to the applicant in its assembled state. He is shown that it consists of nine pieces, three pieces in each layer horizontally and vertically. The pieces are then mixed up and he is asked to reassemble them. The average time required is about five minutes. The other test for "mechanical-mindedness" is like the first except that the nine pieces instead of being irregularly cut, fit together by means of pegs and holes.

In giving these two tests two factors enter into the situation. One is, naturally, the time element. The other is the manner in which the applicant attacks the problem. The man with a natural inclination for designing or engineering begins assembling the pieces with a definite plan in mind. He works with the evident intention of forming a rectangular cube. The man who has no such inclination merely attempts to make the irregularly shaped pieces fit together, regardless of what the result may be. The blocks have been assembled in less than a minute by a man who never attempted the task before, but this is exceptionally fast time. Other people have worked fifteen minutes and more, without success.

Another pair of tests which are apparently similar and actually very different are the tests for dexterity of fingers. The first one of these consists of a square metal board containing one hundred holes into each of which three brass pegs fit loosely. There is a square tray also of metal beside the board. The person administering the test tips all the pegs out on the tray and the girl taking the test is told to put them back again, three pegs in each hole, using one hand only in the operation. The second of these tests looks quite similar but is really vastly different. There is a board with one hundred holes and a tray as in the first test, but there is only one peg for each hole and it fits into its hole much less loosely. Those one hundred pegs are to be taken out of their respective holes with a pair of tweezers, laid on the tray and then replaced by means of the tweezers. Strange to say, there is almost no relationship between the results attained in the first test and those attained in the second.

A third type of sample job is that used to examine applicants for inspection jobs,—that is, inspection of small work. The apparatus for this test consists of a cabinet into which a drawer fits. The drawer contains eighteen different articles. For example, on the day we visited the laboratory we saw, among others, such articles as the following: nut, key, envelope, eraser, penny, and watch. The cabinet is open at the back and so constructed that when the drawer is closed the examiner can remove an article from it without the examined's seeing what he has removed. When the applicant comes to the cabinet, he is directed to sit down before it and look carefully at the contents of the drawer

for one minute. Then the drawer is closed and one of the articles is removed or another is added. Then the drawer in shown to the applicant again and he is asked to tell what change has been made.

A fourth type of sample job, one which, however, does not predict future aptitude, but merely present skill, is the comptometer test. The apparatus for this test consists of a board about one foot square in the center of which are arranged in an equilateral triangle, perhaps three inches on a side, three buttons the size of a comptometer key. About each button is a ring. Between the button and the ring is a space equal to the distance between one comptometer key and another. The candidate punches each button in succession for a period of thirty seconds. The apparatus is arranged so that if she hits the button alone a certain mark registers; if both the button and the ring, a different mark; if the ring only, no mark at all. This test had to be devised especially for this job since it was found that the general test for dexterity of fingers did not function in testing comptometric skill.

The fifth test and the one which will best serve as a basis for our discussion, not only of the results of these tests but also of the method of invention and application, is the test for clerical workers. This test consists of a sheet of paper on which are two parallel lists of numbers arranged in groups of five each. In the first group each number consists of two digits; in the second, of three and four; and so on, until in the last they consist of ten and eleven digits each.

Parallel to these columns of numbers are two columns of dotted lines, one headed "Same" and the other "Different". The applicant puts a check in the "Same" column if the number in column one is the same as the number beside it in column two. If the number in column one is not the same as the number beside it in column two the applicant puts a check in the "Different" column.

For example let us look at the following part of a sample page.

GENERAL ELECTRIC COMPANY

TEST No. 1

1st Col.	*2nd Col.*	*Same*	*Different*
96	96	....X....	.....
64	68	.....	....X....
55	55	....X....	.....
43	63	.....	....X....
80	80	....X....	.....
392	397	.....	....X....
653	653	....X....	.....
659	956	.....	....X....
8672	8762	.....	....X....
1983	1983	....X....	.....

It may be interesting to observe that in scoring this particular test, the following formula is used:

$$\frac{T}{30-2E} = \text{Score}$$

"T" means time in minutes and decimals of a minute. "E" means number of errors. The lower the score the better the result.

In devising and applying these tests there are a number of problems confronting the psychologist: (1) How shall we decide what is an A score, a B score, a C score, or a D score? (2) How shall we make sure that these tests are tests for the particular ability we are after? (3) How can we be sure that they are not mere tests of an acquired rather than an innate ability, that is, how can we be sure that they will predict the future success or failure, on a certain job, of an individual who has had no previous experience with that job? (4) How can we be sure that we are administering them correctly, that is, how can we be sure that a failure, for example, is really

due to the client's unfitness, and not to our own inefficiency?

Let us turn our attention again to the clerical test which we have just been considering. The history of this test exemplifies the method of devising and administering all these tests. The first thing that the psychologist and his associates did was to arrange what they hoped might prove to be the test they wanted. This test was given to 400 people, some clerical, some not clerical workers. The best hundred scores determined the rank of A; the second best hundred determined the rank of B; the third best hundred, the rank of C; and the poorest hundred, the rank of D. The test was next given to 100 clerical workers of recognized skill and efficiency, and thereafter to 100 clerical workers of recognized inefficiency. If all the skilled clerical workers got A's or B's and the unskilled all C's or D's, these psychologists were sure that the test really tested clerical ability. The next question was whether it was an acquired or innate ability. In order to answer this, the figure question was given not only to accountants but to typists. It was found that not only the accountants who had had long experience with figures, but also the typists with virtually no experience with figures succeeded in these tests in exactly the same measure as they were efficient in their daily work. Yet this was not enough. A similar test, in which words rather than numbers were used, was devised and given to the accountants who had had no experience with words, and it was found that a good accountant who had done well on the number test did equally well on the word test, so that it was conclusively demonstrated that the test showed innate and not acquired ability.

The next thing was to put the tests into actual application. But there still remained one problem. How administer them in such a way that one could be sure that the results would be reliable? The first thing, of course, was to provide a quieting atmosphere. One of the quieter shops was chosen and the apparatus installed. Care was given to the lighting which, while subdued, was nevertheless sufficient. As one enters the psychological laboratory one has the feeling that one is in a place of quiet, a clean place, we almost said a homelike place. To be sure, there are brick walls, and firebuckets installed where they should be; yet one is conscious not of them but of the modestly artistic, simple furnishings.

The second thing was to put the candidate at his ease, not only in the room, but also in the presence of his inquisitors. It was explained to the candidate that the test was not to bar him from employment but to help him find the most congenial work and that in which he has the best chance to make good. He was told also that everyone failed in some of these tests but that some one of them was practically certain to show his own peculiar fitness for the kind of work it represented. If he felt himself especially adapted to some particular occupation, he was allowed to try the test devised to test the particular ability indicated by that type of work and, if he succeeded, was assigned to that work.

Furthermore, the examiner made sure that the applicant thoroughly understood the nature and method of the test he was being given. For example, in the clerical test he was given one sheet on which he did the first ten figures only. The examiner showed him his mistakes very carefully until he was quite sure that the applicant understood. Then the

applicant did two other sheets completely.

A normal rate of improvement has been determined and if the candidate shows too great a rate of improvement, the examiner knows that he himself has been inefficient and not the applicant. As a matter of fact, we were told that a man scarcely dare feel competent to administer one of these tests until he has done so at least one hundred times.

But the proof of even a psychological pudding is in the eating. What, then, are the results of this method of examination? In this connection, "it is interesting to note that when two graduates of one of the country's leading technical schools applied for engineering positions at the West Lynn works, one of them passed the wooden blocks test in excellent time, while the other was completely baffled with it. It was recommended that the man who failed be put at some other work, but this recommendation was not accepted, since both men had done excellent work while in college. Both men went under one department head. In three months the man who failed had to be dropped, while the other man was doing excellent work."

Another interesting case was that of a young woman employed on a piecework job requiring a certain amount of dexterity of fingers. She was not making good on her job, in fact was not making her basic rate.[1] She was given the pegs and holes test and failed on it. Then she was given the test for clerical work and passed it with an excellent score. She was transferred to an office job where she made good and has since been promoted.

[1] Basic rate is the amount of money which it is expected that every worker on a given piecework job can make in one week.

As we have already suggested, not all tests will predict future success or failure, some merely measure present skill. For example, the comptometer test will measure whether a girl is at present a good comptometer operator if she already is one, but will not predict whether she will become one in the future, not being one now. The reason is clear. If a girl is an efficient comptometer operator at the present time, she has several kinds of skill, one of which is skill in rapidly striking keys without touching others a certain distance from them. Having this ability, she will do well on the test. On the other hand, a girl who has never seen a comptometer may have this same ability to strike keys without the other abilities that a comptometer operator needs. She, too, will do well on the key tapping test but may perhaps never become a successful comptometrist.

This science of testing abilities by means of sample jobs is still in its infancy. Of nearly a hundred sample jobs that have been devised, all but these which we have described have been discarded and not all of these predict future success or failure in a given line of work. Moreover, in most cases they only pick out the best and the worst in a given field of work. Nevertheless, real progress has been made, real tests that do work have been devised, real results have been shown, and real scholarship, industry, and scientific method have been applied in the work of investigation and experiment.

The field of investigation is large. What is being done now is to find the elemental qualities necessary for the performance of given tasks and then to devise tests for those elements. These are the problems upon which the psychological laboratory is now working. Just as in chemis-

try one tries to reduce a substance to its elements, even so in the application of psychology to industry a job is being reduced to its elements. It will take years, even decades, perhaps centuries, before the work is complete. The various elemental abilities necessary for the performance of the work of the world must be separated. Then tests for these several abilities both of hand and brain must be devised and perhaps later combined into tests not merely for the elements of a job but for the job in its entirety.

The existence of the psychological laboratory in the West Lynn plant of the General Electric Company is of especial interest to students of vocational guidance (1) in that it is an additional justification of our labors and study, (2) in that it shows an aspect of our work that we may not have previously considered or even known, (3) in that it presents the problem from the point of view not of the teacher, nor of the employee, but of the employer, (4) in that it is giving us a new body of data to help us in our task of guiding young America into its proper place in the world's work.

Psychological tests are no longer a thing of the college classroom, nor even of the public school. They have become and will become more and more a vital factor in the life of the world. Who knows but that some day it will be possible not merely to measure a man's physical stature and fitness for his prospective task, but just as accurately to determine his psychic qualifications? No, it will not be a panacea for the industrial ills of the world, but it will at least do much to enable the worker of future generations to find each one that place in the tasks of life in which he can best develop his own abilities and render to society and the world his highest possible service.

TESTING COLLEGE STUDENTS

HERBERT A. TOOPS
Ohio State University

Following the World War, the colleges of the country were quick to realize the possible advantages arising out of securing for each student a measure of "potential capacity for academic attainment," promised by the group intelligence tests. In a survey[1] of the uses of intelligence tests in 1923-24, of some 66 colleges using the tests from among 110 colleges to whom questionnaires were sent, some 30 began their use in 1919-20. By consistent growth the number had risen to 66 who were giving them in 1923-24. At that time the author hazarded the guess that the use of such tests would be all but universal in 1927-28. The questionnaire showed that, contrary to expectations, the tests were used but little for the purpose of entrance, i. e., of denying entrance to those of low "intelligence"; and that, on the contrary, they were widely used for such administrative purposes as:

(a) In determining dismissal for low scholarship;

(b) In encouraging extra effort in the case of unmotivated bright students; and

(c) In determining the amount of school work a student shall be allowed to carry.

[1] Toops, H. A. "The Status of Intelligence Tests in 1923-24." *Journal of Educational Psychology*, Vol. 17, No. 1, Jan. 1926, pp. 23-36; No. 2, pp. 110-124.

This survey also showed that in general the tests then used were often too short, too easy, and that they possessed in many cases little merit for college testing. (Some thirty different tests were used by 66 colleges.) There were in use at that time only two tests which were available in more than two alternative forms to meet the varied needs answerable only by a multiplicity of alternative forms of examination: Prevention of coaching; providing means of greatly lengthening the time limits (use of two or more forms per student) while keeping difficulty practically constant; measuring the effects of coaching; and provision of adequate test controls in pedagogical experiments. The period of 1919-1924 may then be described as a period of widespread *individualistic* experimentation with tests in an effort to determine for what pedagogical and administrative purposes they are acceptable.

The period 1924-27 has been marked by the growth of intensive *cooperative* study of college personnel problems, in which the intelligence tests, though but one part, are nevertheless an important part still.

The annual meetings of college personnel research workers, sponsored by the Personnel Research Federation, have annually collected college personnel research workers from the ends of the country to discuss their common problems. The American Council on Education has distributed annually a common test in a large number of colleges, some 150 colleges scattered about the entire country thus coöperating in 1925-26. The Ohio College Association has for the past two years conducted a coöperative experiment which in 1926-27 enrolled some 50 Ohio Colleges and normal schools. The Department of Psychology of Iowa State University has had the cooperation of many colleges in developing its placement and aptitude examinations, as have the Bureau of Collegiate Educational Research (Columbia) and the College Entrance Examination Board (New York).

The conviction is growing, with the accumulation of statistical evidence, that college marks are decidedly unreliable in the statistical sense, i. e., that the marks of any one semester do not even agree with and predict well subsequent scholastic success, to say nothing of the extent to which they predict after-college success, about which we know little or nothing. The urgency of this problem, "What constitutes success?" has not thus far led to much experimentation in the field.

The problem of unreliability of marks and the closely related problem of their prediction through tests is being attacked from two different viewpoints: (a) That of improving the course examinations themselves,[1] and (b) attempting to measure traits other than intelligence which act in a "causal" way to produce the marks.[2] It is becoming increasingly apparent that, even with the most objective and highly reliable marks obtainable, there will be lack of perfect correlation between college success and intelligence test scores,—that is, factors other than 'intelligence" account for not a little part of college success, e. g., such factors as:

a. Amount of time studied.[3]

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[1] Paterson, D. G. The Preparation and Use of New Types of Examination. World Book Co. 1924.

Ruch, G. M. Improvement of the Written Examination. 1924, 193 pp.

Wood, Ben D. Survey of College Examinations, Teachers College, New York, 1926, 30 pp.

[2] Toops, H. A. The Prediction of Scholastic Success in College. *School and Society.* To appear shortly.

[3] May, Mark A. "Predicting Academic Success." *Journal of Educational Psychology,* Vol. 14, Oct. 1923, pp. 429-440.

b. Health.
c. Efficiency of study habits.[1]
d. Difficulty of the course.
e. Load of college work elected.
f. Adequacy of previous preparation.
g. Adequacy of study environment.
h. Various "character" attitudes, habits, and drives.
i. Various errors in college marks and test scores and statistical measures of above traits.
j. Other as yet unanalyzed capacities and abilities.

This latter period has also noted the beginning of organized college research bureaus, and of the organization of college faculties for self-surveys of personnel policies and procedures, studying such problems as costs, elimination, transfers, probation, scholarships, social changes in the student body, and the relationship of such phenomena to industrial prosperity, college organization and formal faculty rules, and current administrative and pedagogical practices. The university, normally one of the most conservative of institutions, is beginning to feel the urgings implied in the philosophy of "teaching the child, not the courses," a philosophy which has had such far-reaching consequences in serving to bring about a reorganization of elementary and secondary education. Only the pressure of enormous sudden influxes of students, an after-war phenomenon, paralleling the recent greatly increased popularity of the high school, would have brought about the personnel progress of a generation in a few years as we may anticipate will be the outcome of the immediate future. With 50,000 college instructors in the United States and no college for teachers of higher education in the land, the profession of college teacher stands practically unique in being one for preparation in which there prevails no interneship, no strictly professional studies (aside from content courses), and one in which no state license or degree of competence is in any way enforced by the public which it serves. Not the least benefit of the testing movement in the colleges, therefore, is the growing realization that college teaching can be and should be professionalized,—that "a thorough knowledge of one's subject matter" is only one of the possible prerequisites to good teaching, and that the "elimination of those unworthy of or unable to profit by a higher education" is one of the least justifiable aims of college education.

[1] Toops, H. A. "The Prediction of Scholastic Success in College. *School and Society*. To appear shortly.

WHAT PRICE AIR MAIL?

The night is black with fear and fright,
The air a direful wall,
The hooting owl jeers at the sight;
Man flying for a fall.

But the mail is due at old New York
In thirty hours at most,
And night and sky won't stop the man
Who has to bring the post.

He makes his start. "He's off!" they shout.
The brave lad mounts on high,
And straight against the wall of night
He sets his plane to fly.

He barely clears the mountain top,
He veers around a lake,
And on the clouds he rides alone,
His life and MAIL at stake.

At break of dawn he nears the field,
Where waits, all set to sail,
A throbbing plane, with pilot bold
To carry on the mail!

And so at risk of life and pate
The precious mail comes near.
My postman gives me . . . "Climate great;
I wish that you were here."

—L. N. BOGEN.

A STUDY OF THE EFFECT OF WORKING UPON A PUPIL'S SCHOOL SUCCESS

FRANCIS T. MCCABE, *Harvard University*

This study is the result of an attempt to determine the effect upon a pupil's school success of working outside of school hours. It was conducted at the Rindge Technical School in Cambridge, Massachusetts. Cambridge is an industrial city within easy reach of Boston, the industrial and commercial center of New England. The entire school has an enrollment of one thousand boys ranging in age from thirteen to twenty years. Boys are admitted to the school after graduation from the eighth grade, except that boys may be admitted to the Trade Section after completing the work of the sixth grade. If they are retarded pupils or otherwise become difficult cases to handle in the seventh or eighth grades, they may be admitted to this section.

The school is a combination Technical High School and Trade School exclusively for boys. It is divided into three sections—(a) The College Preparatory Section, (b) The General Section, and (c) The Trade Section.

The College Preparatory Section, which contains about one-fourth the student body, offers courses in preparation for entrance to such schools as Harvard Engineering School, Massachusetts Institute of Technology, Lowell Textile School, and other schools and colleges in this section of the country, particularly the engineering, dental, medical, and textile schools.

The General Section, which contains more than one-half the pupils, is intended for boys who will go to work immediately after graduation in full-time positions, but the courses are so organized that these boys will have no difficulty in qualifying for admission to such evening schools as Lowell Institute, Northeastern College (Evening Division), Evening Art School, and similar schools. It is expected that the training received through these courses will fit the boys for positions as "non-commissioned" officers in the industry and commerce of this locality.

The Trade Section, which is the smallest, with less than two hundred pupils, is intended to meet the needs of those who have mechanical ability and wish to become proficient enough in some trade to earn a living. The courses in this section differ from the courses in the General Section in that the amount of shop work is much greater and the academic work is considerably modified. The aim, in these courses, is to produce skill in the operations of a trade, so that the boys upon graduating may secure work in one of the twelve different trades as carpenter, printer, machinist, auto mechanic, draftsman, electrician, stock clerk, commercial artist, etc.

The study was conducted with a group of 758 boys, without previous knowledge of the boys' characteristics or capacities. The only selection made was an attempt to obtain by sampling a true cross-section of the entire student body. Each boy was asked to answer the questions, submitted to him on the questionnaire which is shown herewith, concerning his employment after school hours. From the data

accumulated the Workers, those who work after school for pay, and the Non-workers, those who do not work after school, were separated into the two main groups which we compare in this study.

For the measure of the school success of the individuals in both groups the office records for each student were consulted. The average mark, for all subjects taken during the year, for each of the 758 boys was computed. These average marks were classified and compared. As a further indication of probable school success of the individuals making up the two groups, a comparison of the failure marks as distributed within the groups was made, and a similar comparison was made in honor marks.

In order to determine the relative abilities of the individuals of the two groups and consequently the relative abilities of the two groups, it was decided to administer a group Intelligence Test for at least one-half the entire number of cases being studied. Consequently, the I. Q.'s for 427 of the 758 boys were determined and the distributions in the two groups are shown.

Finally, the Worker group was subdivided according to the answers to questions 9 and 10 on the Questionnaire. This classification gave us two groups of workers: (1) those who work for the pleasures afforded by the extra money and (2) those who are compelled to work. These two new groups were compared with each other and with all the workers in school marks, failure marks, honor marks, and intelligence quotients.

Questionnaires, like the one shown below, were returned by 758 boys. 361 were classified as Workers and 397 were Non-workers. Of the 361 Workers, 107 were compelled to work to remain in school and 254 worked for the pleasures afforded by the extra money.

Questionnaire

1. Name .....
   Last First Middle
2. Age .....yrs. .....mos. 3. Class .....
4. Do you work for money during the school year?
5. Indicate under the appropriate days the hours during which you work.
   Mon. Tues. Wed. Thurs. Fri. Sat.
   ....
6. Nature of work .....
7. Name of Employer .....
8. Address of " .....
9. Are you obliged to work to remain in school? .....
10. Do you work for the pleasure afforded by the extra money? .....

The greatest number, sixty-four, have paper routes; fifty-seven are clerks in chain stores and markets; thirty-two are errand boys in grocery stores and tailor shops; seven work in local libraries; three are laboratory assistants; and three give music lessons. Many of the others work at miscellaneous jobs such as janitors' assistants, mowing lawns, and shoveling snow.

In this study we are considering as Workers only those boys who work before or after school. It would seem that Saturday work has little or no effect on school success since it does not take time that is likely to be devoted to study.

TABLE I. DISTRIBUTION OF THE WORKERS ACCORDING TO THE HOURS OF EMPLOYMENT

Working Hours per school day	WORKERS No.	%
(1)	(2)	(3)
1.0-1.9	29	8.0
2.0-2.9	67	18.5
3.0-3.9	158	43.8
4.0-4.9	51	14.2
5.0-5.9	27	7.6
6.0-6.9	12	3.3
7.0-7.9	7	1.9

Working Hours per school day	WORKERS No.	%
8.0-8.9	7	1.9
9.0-9.9	3	0.8
Totals	361	100.0

In Table I is shown the distribution of the workers according to the hours that the boys work on school days. The greatest number of workers, 158, or 43.8 per cent of them work about three hours per school day. Seventy per cent of the workers work less than four hours a school day. Of the seventeen boys who work more than seven hours per day, sixteen are over seventeen years of age. One boy who works eight hours a day six days a week, has been an honor pupil for two years and will enter college in the fall.

not enough difference between the median school marks of the Workers and the Non-workers to justify a differentiation on the basis of school success. The percentile distribution of the marks for the Workers, shown in column 5, and for the Non-workers, shown in column 7, are about the same and either compares favorably with the distribution of the groups combined, shown in column 3. While the non-worker group has a greater percentage of its marks below sixty per cent, it also has a greater percentage of its marks above seventy-five per cent. Considering the results of many studies showing the unreliability of teachers' marks it is evident that no significant difference exists between the workers

TABLE II. DISTRIBUTION OF THE WORKERS AND THE NON-WORKERS ACCORDING TO THEIR AVERAGE SCHOOL MARKS

Average School Marks	Total Cases No.	%	Workers No.	%	Non-workers No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
80-84	12	1.5	3	0.8	9	2.3
75-79	32	4.2	15	4.1	17	4.2
70-74	105	13.8	47	13.0	58	14.6
65-69	213	28.1	109	30.5	104	26.2
60-64	268	36.3	132	36.5	136	34.2
55-59	99	13.1	44	12.2	55	13.8
50-54	23	3.3	10	2.6	13	3.4
45-49	6	0.7	1	0.3	5	1.3
Totals	758	100.0	361	100.0	397	100.0

Median school mark average all cases, 63.7%.
Workers, 63.1%; Non-workers, 64.4%.
Percentage of average school marks below 60: All cases, 17.1%; Workers 15.1%; Non-workers, 18.5%.
Percentage of average school marks above 75: All cases, 5.7%; Workers, 4.9%; Non-workers, 6.5%.

In Table II, the number and percentile distribution of the Workers and the Non-workers according to average school marks is shown, together with the distribution for both groups consolidated. The 758 pupils under consideration received 5048 marks or 6-2/3 marks per pupil. The mark range for both groups is about the same. There is

and the non-workers, as judged from school marks.

The results of arranging the failure marks for the boys of each group, according to the number of subjects in which the individuals are failing to receive credit toward graduation, are shown in Table III. In this school, a mark less than sixty per cent in any subject con-

stitutes a failure in that subject. Of the 5048 marks given to the 758 pupils, 1045 or twenty per cent were failure marks.

pose of this paper, are taken as marks of seventy-five per cent or better in any school subject.[1] In Table IV is shown the distribution

TABLE III. DISTRIBUTION OF THE WORKERS AND THE NON-WORKERS ACCORDING TO THEIR FAILURE MARKS.

Failure Marks	Total Cases		Workers		Non-Workers	
No. of subjects	No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	269	35.2	123	34.1	146	36.8
1	197	26.0	101	28.0	96	24.2
2	140	18.5	70	19.4	70	17.6
3	81	10.7	38	10.5	43	10.8
4	41	5.5	16	4.4	25	6.3
5	20	2.7	8	2.2	12	3.0
6	9	1.2	4	1.1	5	1.3
7	1	0.2	1	0.3	0	0.0
Totals	758	100.0	361	100.0	397	100.0

No. of failure marks per pupil, all cases, 1.37; Workers, 1.36; Non-workers, 1.39.
Percentage of failure marks in total number of marks, 20.0.

When the percentile distributions of either group, columns 5 or 7, are compared with the total number of cases studied, column 3, no significant differences seem to prevail, and when the groups are compared with each other, the same conclusion will be reached. The number of failure

of the two groups under consideration according to the number of subjects in which honor marks were received by the individuals comprising the groups. No remarkable differences between the percentile distributions seem to exist when the groups are compared with each

TABLE IV. DISTRIBUTION OF THE WORKERS AND THE NON-WORKERS ACCORDING TO THEIR HONOR MARKS.

Honor Marks	Total Cases		Workers		Non-workers	
No. of subjects	No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	356	47.0	181	50.0	175	44.0
1	211	27.9	104	28.9	107	26.9
2	102	13.5	38	10.5	64	16.2
3	52	6.9	24	6.6	28	7.1
4	26	3.5	11	3.1	15	3.8
5	9	0.9	2	0.6	7	1.7
6	2	0.3	1	0.3	1	0.3
7	0	0.0	0	0.0	0	0.0
Totals	758	100.0	361	100.0	397	100.0

Number of honor marks per pupil—all cases, 0.97; Workers, 0.84; Non-workers, 1.06.
Percentage of honor marks in total number of marks, 14.5%.

marks per pupil in each group is so nearly the same that the slight difference cannot be of importance.

Since we have compared the failure marks of the two groups, it is only fair to compare the marks indicative of high standing (honor marks). Honor marks, for the pur-

other or when either is compared with the total number of cases be-

[1] Honor marks, while seeming low on a percentage basis, are actually high when compared with the marking range existing generally at this school. Here the marking range is ordinarily from fifty to eighty-five percent.

ing studied. The only feature worthy of special note is that 56.0 per cent of the Non-workers and 50.0 per cent of the workers have one or more honor marks. In this connection it should be remembered that a greater percentage of the Workers have one or more failure marks.

In Table V is shown a comparison in intelligence of the Workers and the Non-workers with each other and with the total number of cases studied. The intelligence was measured by the Group Intelligence Test—Dearborn Series II-C. This test was selected as the most desirable one for the purpose because it has the advantages of other group tests in regard to administrations, scoring, and reliable norms. In addition, it is less linguistic than many of the group intelligence tests and consequently more adaptable to the group for which it was used. In the table, the two groups are arranged according to the Intelligence Quotients of the individuals comprising the groups and the percentile distributions are shown in the same manner. While the Workers have a median I. Q. three points less than the Non-workers, I believe that the difference is not significant and could easily be accounted for in terms of acceleration, retardation, and other factors not a part of this study. Neither is the difference between the percentage of I. Q.'s below 100 for both groups significant enough to warrant further investigation. Such differences as exist cannot be relied upon to indicate greater abilities for either group because of the nature of tests and the limits of reliability for norms in general.

TABLE V. DISTRIBUTION OF THE WORKERS AND THE NON-WORKERS ACCORDING TO THEIR INTELLIGENCE QUOTIENTS [1]

Intelligence Quotient	Total Cases Number			Workers Number			Non-workers Number		
	Derived	Actual	%	Derived	Actual	%	Derived	Actual	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
130-139	5	3	0.7	2	1	0.6	3	2	0.8
120-129	60	34	8.0	18	9	4.9	40	25	10.1
110-119	212	119	27.9	92	46	25.4	118	73	29.6
100-109	202	114	26.7	114	57	31.5	92	57	23.2
90-99	144	81	19.0	85	43	23.8	61	38	15.4
80-89	80	45	10.5	38	19	10.5	42	26	10.5
70-79	42	24	5.6	10	5	2.7	31	19	7.7
60-69	11	6	1.4	2	1	0.6	8	5	2.3
50-59	2	1	0.2	0	0	0.0	2	1	0.4
Totals	758	427	100.0	361	181	100.0	397	246	100.0

Median I. Q.'s all cases, 104; Workers, 103; Non-workers, 106.
Percentage of I. Q.'s above 100, all cases, 63.3; Workers, 62.4; Non-workers, 63.7.

The second part of this study is a comparison of the boys who are obliged to work in order to remain in school because they must be partly or wholly self-supporting, with the boys who work so that they may have extra money to spend on pleasures and luxuries. The stimuli which prompt these two groups to work are vastly different and for that reason we are investigating the reaction in the school success of the two groups. We have followed the same method in comparing these two groups of workers as we followed in comparing the worker and the non-worker groups. Table VI, which shows the distribution of the two worker groups ac-

[1] The derived numbers are shown to enable the reader to make direct comparisons with the other tables.

cording to school marks, seems to indicate that those who are compelled to work take the school work more seriously and try harder, because they surpass the other group by about three and one-half per cent in number, having average school marks above seventy-five per cent and they have no more native ability, as is shown in Table IX.

TABLE VI. DISTRIBUTION OF THOSE OBLIGED TO WORK AND THE WORKERS FOR EXTRA MONEY ACCORDING TO THEIR AVERAGE SCHOOL MARKS

Average Sch. Marks	Total Workers		Obliged to Work		Workers for Extra Money	
	No.	%	No	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
80-84	3	0.8	1	0.9	2	0.8
75-79	15	4.1	7	6.6	8	3.2
70-74	47	13.0	16	15.0	31	12.2
65-69	109	30.5	33	30.8	76	30.0
60-64	132	36.5	38	35.4	94	37.0
55-59	44	12.2	7	6.6	37	14.5
50-54	10	2.6	5	4.7	5	1.9
45-49	1	0.3	0	0.0	1	0.4
Totals	361	100.0	107	100.0	254	100.0

Percentage of average school marks below 60: all workers, 15.1%; workers for extra money, 16.8%; obliged to work, 11.3%.

Percentage of average school marks above 75: all workers, 4.9%; workers for extra money, 4.0%; obliged to work, 7.5%.

They also have a smaller percentage of average school marks below sixty per cent.

When the groups are compared in failure marks, Table VII, the group which is obliged to work has fewer failures—only twenty-six per cent; while the workers for extra money have seventy per cent of the total failures for both groups. Such a large difference seems to be significant. Because of the difference in the sizes of the two groups—those obliged to work and those working for extra money—it would possibly be more reasonable to compare the groups in terms of failure marks per pupil.

When this was done it was found that the workers for extra money had 1.42 failure marks per pupil while those obliged to work had only 1.20 failure marks per pupil. The table also shows that a greater percentage of the group obliged to work have no failure marks.

TABLE VII. DISTRIBUTION OF THOSE OBLIGED TO WORK AND THE WORKERS FOR EXTRA MONEY ACCORDING TO THEIR FAILURE MARKS.

Failures No. of Subjects	Total Workers		Obliged to Work		Workers for Extra Money	
	No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	123	34.1	39	36.4	84	33.1
1	101	38.0	33	30.8	68	26.8
2	70	19.4	18	16.8	52	20.4
3	38	10.5	12	11.2	26	10.2
4	16	4.4	3	3.0	13	5.1
5	8	2.2	1	0.9	7	2.8
6	4	1.1	1	0.9	3	1.2
7	1	0.3	0	0.0	1	0.4
Totals	361	100.0	107	100.0	254	100.0

Number of failure marks per pupil: all workers, 1.36; workers for extra money, 1.42; obliged to work, 1.20.

From Table VIII it will be seen that over ten per cent more of the workers for extra money have no honor marks than of those obliged to work. When honor marks per pupil are considered those obliged

TABLE VIII. DISTRIBUTION OF THOSE OBLIGED TO WORK AND THE WORKERS FOR EXTRA MONEY ACCORDING TO THEIR HONOR MARKS.

Honors No. of Subjects	Total workers		Obliged to Work		Workers for Extra Money	
	No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	181	50.0	44	41.2	137	53.9
1	104	28.9	38	35.5	66	26.0
2	38	10.5	9	8.4	29	11.4
3	24	6.6	11	10.3	13	5.1
4	11	3.1	3	2.8	8	3.2
5	2	0.6	1	0.9	1	0.4
6	1	0.3	1	0.9	0	0.0
7	0	0.0	0	0.0	0	0.0
Totals	361	100.0	107	100.0	254	100.0

No. of honor marks per pupil—all workers, 0.86; obliged to work, 1.04; workers for extra money, 0.78.

TABLE IX. DISTRIBUTION OF THOSE OBLIGED TO WORK AND THE WORKERS FOR EXTRA MONEY ACCORDING TO THEIR INTELLIGENCE QUOTIENTS.[1]

Intelligence Quotients	Total Workers Number			Obliged to Work Number			Workers for Extra Money Number		
	Derived	Actual	%	Derived	Actual	%	Derived	Actual	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
130-139	2	1	0.6	2	1	1.8	0	0	0.0
120-129	18	9	4.9	8	4	7.4	10	5	3.9
110-119	92	46	25.4	36	18	33.4	56	28	22.0
100-109	114	57	31.5	20	10	18.5	94	47	37.1
90-99	85	43	23.8	21	11	20.4	64	32	25.2
80-89	38	19	10.5	12	6	11.2	26	13	10.2
70-79	10	5	2.7	6	3	5.5	4	2	1.6
60-69	2	1	0.6	2	1	1.8	0	0	0.0
50-59	0	0	0.0	0	0	0.0	0	0	0.0
Totals	361	181	100.0	107	54	100.0	254	127	100.0

Median I. Q.'s: all workers; 103; workers for extra money, 102; obliged to work, 105.

Percentage of I. Q.'s above 100—all workers, 62.4; workers for extra money, 63.0; obliged to work, 61.1.

TABLE X. COMPARISON OF THOSE OBLIGED TO WORK, NON-WORKERS, AND THE WORKERS FOR EXTRA MONEY, ACCORDING TO SCHOOL MARKS, FAILURE MARKS, HONOR MARKS, AND INTELLIGENCE QUOTIENTS.

	Obliged to work	Non-workers	Workers for extra money
Percentage of average school marks above 75 per cent	7.5	6.5	4.0
Percentage of average school marks below 60 per cent	11.3	18.5	16.8
Number of failure marks per pupil	1.20	1.39	1.42
Number of honor marks per pupil	1.04	1.06	0.78
Percentage of I. Q.'s above 100	61.1	63.7	63.0

[1]The derived numbers are given to enable the reader to make direct comparisons with the other tables.

to work make a better showing. Those obliged to work have 1.04 honor marks per pupil, while those workers for extra money have only 0.78 honor marks per pupil.

Comparing the groups in natural ability as indicated by Group Intelligence Tests, shown in Table IX, it would seem that neither group has a natural endowment which would explain the differences which exist in school success as judged by average school marks, failure marks, and honor marks.

When those obliged to work, the workers for extra money and the non-workers are compared in school marks, it will be seen from Table X that those obliged to work have the greatest percentage of marks above seventy-five per cent and the least percentage of marks below sixty per cent. Those working for the extra money make the poorest showing, while the non-workers hold second place. When the failure marks of the three groups are compared, it will be seen that those obliged to work have the fewest failures per pupil, while the workers for extra money have the largest number of failures per pupil.

A comparison of the three groups in honor marks per pupil shows that non-workers hold first place, while the workers for extra money hold last place.

The intelligence quotients for the three groups show that those obliged to work are slightly handicapped, while the other two groups show about the same natural ability.

Summaries

(a) No outstanding differences exist between the Workers and the Non-workers in school marks.

(b) Judged by failure marks, the Workers are a little more successful in school.

(c) Judged by honor marks the Non-workers are a little more successful in school.

(d) The group intelligence tests show no distinction between the groups in general mental ability as shown by the tests.

(e) Of the two groups of workers, those obliged to work show greater success in average school marks.

(f) The group obliged to work has fewer failure marks per pupil than the group working for extra money.

(g) Those obliged to work have more honor marks per pupil than the workers for extra money.

(h) The two groups of workers are not distinguishable in general mental ability.

(i) Those obliged to work are more successful in average school marks than either the Non-workers or the workers for extra money.

(j) The Non-workers and the workers for extra money make about the same record when failure marks are considered, and both have more failures per pupil than those obliged to work.

(k) When honor marks are considered those obliged to work hold first place, the Non-workers hold second place, and the workers for extra money hold last place.

(l) Those obliged to work have slightly less general mental ability than either the Non-workers or the workers for extra money.

Conclusions

The boys who are obliged to work are more successful in school work than either the non-workers or the workers for extra money.

The non-workers meet with more school success than the workers for extra money.

AVIATION AS A CAREER

DELOS C. EMMONS, *Major, U. S. Air Corps*

There is a fascination about aviation which appeals to all people. Many a boy reading about famous airplane flights or seeing airplanes pass overhead has wondered if he too could become an aviator. If this feeling develops into a desire to learn to fly he is interested in knowing what kind of training is required, the education he should have to do this work and an idea of the commercial possibilities of aviation.

The question is often asked if it is difficult to pilot aircraft. A person in sound health, of average intelligence, can readily learn to pilot aircraft in an elementary manner. It requires only a clear head, steady nerves and good muscular balance. So far as flying for pleasure is concerned, the sky is open to practically everyone.

There are certain types of flying which are more difficult than piloting aircraft for pleasure. Military aviation employs the most modern types of airplanes, from small speed pursuit planes to slow, heavy bombing planes in a variety of difficult formations and maneuvers. These must be flown in all conditions of weather and are habitually employed in cross country flying. Air mail pilots engage almost exclusively in cross country flying, often at night, and to comply with their schedule are required to face all varieties of bad weather.

Such types of flying not only make greater demands on the skill and judgment of the aviator, but also require a thorough practical knowledge of meteorology, engines, navigation, map reading, and other sciences for this specialized type of work. It has been found that only about one out of five healthy young men possesses the necessary aptitude.

Flying training may be procured in a variety of ways. There are numerous civilian aviation schools which engage to teach students to pilot aircraft. In addition, the United States Army maintains a group of the finest flying schools in the world in order to train military pilots. The choice of the school will depend on the type of flying contemplated. If the object is merely to learn the art in an elementary manner to be able to pilot airplanes for pleasure, the short courses available at any flying school will prove of value. If it is desired to become a professional aviator, it is necessary to continue the training by engaging in more advanced courses or acquiring practical experience by the actual operation of an airplane. The cost of this training varies with different civilian schools but the rates are very reasonable when the expense of operation is taken into consideration.

The flying training offered by the Army is much more thorough than that obtainable in any civilian school. Furthermore, the students are appointed as flying cadets and not only do not pay any fees, but are furnished uniforms, meals and quarters, and paid $75.00 per month while learning to fly. However, the requirements for appointment as flying cadet are necessarily rigid and many individuals are unable to meet the entrance tests. In view of the rigid requirements of military aviation, it has been found

necessary to restrict appointments as flying cadets to those candidates who have the following qualifications:

a. They must be unmarried male citizens of the United States.

b. They must be between twenty-one and twenty-eight years of age.

c. They must not only be sound physically but be able to pass the physical examination for flying.

d. They must have satisfactorily completed two years of college work or possess an equivalent education.

Successful applicants are appointed flying cadets and ordered to the Air Corps Training Center for a course of approximately twelve months' duration. Upon satisfactory graduation from this course they are appointed second lieutenants in the Air Corps reserve. The majority of these graduates are afforded an opportunity for a year's active duty in the regular Air Corps under their reserve commissions. A great many of them enter the Regular Army by successfully passing the necessary examination.

Graduates who do not remain in the regular service often engage in commercial flying as instructors, air mail pilots, test pilots, and other forms of civil aviation. Qualified pilots who do not care to fly professionally may join the Air Corps reserves or the National Guard Air Corps. This affords them opportunities for flying at any Army airdrome and enables them to keep in practice.

Civil aviation includes a number of positions which do not require piloting ability. To maintain airplanes, qualified mechanics and riggers are required as well as airdrome superintendents, shop foremen, aerial photographers and ground engineers. These positions afford many openings for individuals who are not constitutionally adapted for piloting.

The basic education required of an aviator naturally depends on the extent and amount of flying for which he is trained. An ordinary high school education is sufficient for an intelligent person who desires to learn only elementary piloting. For advanced piloting an individual should have at least one or two years of college to prepare himself for the special subjects he must learn. These subjects include:

Thorough knowledge of airplane engines.
Practical meteorology.
Map reading.
Aerial navigation.
Radio.
Aerial photography.
And other subjects.

Advanced flying is a highly technical profession and to be successful in it adequate training is necessary.

Aviation being comparatively a new art has grown slowly, especially in its civilian applications. At present its development is extremely rapid and there is every promise of a sound future with a greatly increased use of aircraft. It affords a splendid career to a person who properly prepares himself by study and training.

The addresses of civil aviation schools can be obtained by writing to the Secretary of Commerce, Washington, D. C. If a person is interested in securing flying training in the Army he should address the Chief of the Air Corps for the necessary application blank and other information.

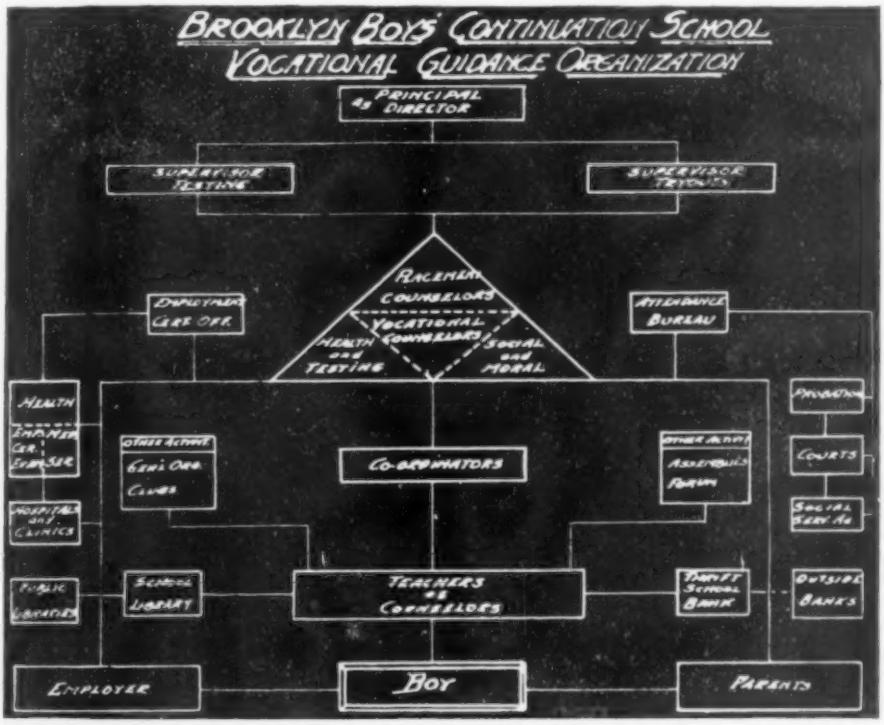
THE ORGANIZATION OF VOCATIONAL GUIDANCE IN THE BROOKLYN BOYS' CONTINUATION SCHOOL

I. DAVID COHEN, in Charge

The accompanying diagram is an attempt to present graphically the organization of vocational guidance in the Brooklyn Boys' Continuation School.

This guidance begins with the boy fresh from the school which he has just left, perhaps with no definite aim or knowledge of the industrial world which he is about to enter. With the help of his teachers who are counselors, a plan is worked out by the boy himself for a definite life career and he is inspired to look into the future with confidence and hope. As a result of his stay in the Continuation School, the pupil no longer "drifts with circumstances" but prepares to take his place in society.

Let us see the various steps in the progress of carrying out this guidance program.



1. *The Preparatory Class*

The work of the preparatory class is that of a vocational guidance station or laboratory. It is in this class that the purposes of the Continuation School are explained. It is here

that the boy has presented to him the opportunities in the industrial world and the requirements for meeting them. It is here that he must do some hard thinking as to the place he would like to fill in the world. It is here that he comes back if he needs further guidance, whether it be mental, moral, social, or vocational.

2. *Testing*

In order that there may be some scientific data upon which the first recommendation for a definite occupation is made, each child is given a series of tests. In addition to the Terman and Otis Intelligence Tests, the following aptitude tests are now being used.

Tests Used

A. A general test for mechanical ability. This consists of a series of simple tasks that the pupil must perform, such as putting the parts of a bicycle bell together.
B. A special mechanical test for students wishing to enter the woodworking classes.
C. A special mechanical test for those wishing to enter the machine shop classes.
D. A prognosis test for those wishing to enter the commercial classes.

We are adding to these tests and expect before long to have a test representing each department in our school. These tests are designed to test the interest, inclination, and ability of pupils before they are assigned to one of the regular classes to try out their aptitudes.

3. *Visual Aids*

A feature of our guidance work is the use of visual aids. These are employed by the vocational counselor in order to stimulate the student's interest in choosing an occupation. "What Shall I Be?" is the predominating thought that these suggestive posters and charts create.

Among the topics illustrated by charts, diagrams, placards, and posters are: *How to get and hold a job, how to succeed, how to get pleasure out of your work; health, thrift, and the use of leisure time.*

4. *The Interview*

Before a pupil is assigned to a class he is interviewed by the counselor. All the information that may be helpful in guidance is elicited. The boy's record in school is noted, his particular likes and dislikes, his home environment, the occupations of his relatives, how he spends his leisure time, his plans for the future,—all are gone into very thoroughly.

5. *The Vocational Insight Cards*

A number of Vocational Insight Cards on everyday occupations acquaint the child with the problems that arise in the common occupations of this city and give him an insight into them so that he may plan for the future more intelligently. After reading and discussing occupations the boy discovers the one that he would like to try. Some of the vocational insight cards used are: The Mason, The Plasterer, The Printer, The Machinist, The Carpenter, The Plumber, The Salesman.

For the increasing number of high school pupils coming to the continuation schools, there is a series of professional vocational insight cards. We find a number of our pupils going to evening high school because they wish to take regent's subjects. Among the professional vocational insight cards used are: The Lawyer, The Doctor, The Dentist, The

Clergyman, The Teacher, The Architect.

6. *The Try-Out*

On the basis of the information gathered by the counselor the boy, now ready for his first try-out, is assigned to an activity for three or four weeks. Here the new pupil is very carefully watched by his instructor. In addition to the regular teacher, a staff of special counselors re-interview these pupils to see whether they are properly placed and how they are progressing, and are on the alert to make better adjustments.

7. *Transfers from Class to Class*

A pupil is given as many try-outs as are necessary in order that he may discover the type of work for which he is best fitted. This requires a very flexible system of transfers from class to class. Since a boy's plans may change frequently, it is necessary constantly to check up on the advice given and readvise.

8. *The Individual Program*

Each pupil is provided with an individual program card. This card states the nature of his future plans or ambition and the studies that he should pursue to reach his goal.

These cards are checked up from time to time to see whether the pupil is carrying out his plans or is permitting himself to drift.

9. *The Placement Bureau*

No boy can complain that attendance at Continuation School makes it impossible for him to secure employment. Our employment bureau, which coöperates with the State Department of Labor, is well able to take care of those who are now attending our school, our graduates, as well as others who apply.

Complete records are kept of boys' school and employment histories. Contacts are established with employers. Orders for juvenile workers are investigated by the placement workers and also by the teachers of the school.

10. *Coordination*

Each teacher spends, in addition to the time in school, from one to two hours a day in following up his boys on the job. The purpose of these follow-up visits is to acquaint the teacher with the actual conditions under which his boys work and bring back to the school teaching material of a practical and vital nature. Industrial surveys are made from time to time, and the information is turned over to the placement bureau. Occasionally the visits are made for the purpose of securing pay for the boy who is suffering a loss of pay because of the attendance at school. A recent check up shows that about ninety per cent of the children are receiving pay while at Continuation School. From time to time visits are made to the home for the purpose of studying the home conditions and of getting better coöperation with parents. By means of the follow up the services of outside agencies are enlisted to promote the welfare of the boy.

Outside Agencies Coöperating with the School

1. Department of Health,—medical inspection.
2. Department of Labor,—labor laws and factory inspection.
3. Hospitals, clinics, etc.

4. Brooklyn Juvenile Protective Association.
5. Big Brothers and Big Sisters.

11. *Health Service*

Medical examination of all new entrants is done by the school doctor. Notes of his findings are recorded. Follow up is made of boys requiring treatment.

12. *Social and Moral Guidance*

Special attention is given to truants, delinquents, and others inclined to be wayward. An attempt is made to find the cause and present a remedy. Parents are interviewed, employers are visited, boys are advised.

13. *Employment Certificating Bureau*

The Employment Certificating Bureau is located on the premises of the school. Here boys receive their working papers and are registered in the Continuation School. Contact is made with the Health Department which makes physical examinations prior to issuance of employment certificate. The files of the Employment Certificating Office are used by the teachers to check up changes of employment.

HOME PROJECT AND ITS RELATION TO EDUCATIONAL AND VOCATIONAL GUIDANCE

FRANCES R. BACHARACH

Home Project Teacher, High School of Practical Arts, Boston, Massachusetts

Certainly there is not a more important phase of vocational education than that presented to the girls of our public school systems by the Household Arts departments. Homemaking as a vocation is the basis for our future citizenship and is second to none in the line of progress.

A new plan has been adopted by one of the leading vocational high schools in our country and is being successfully carried on under the name of Home Project work. The chief value in this plan is the close contact of the home and the school.

The work is so organized that the principal of the school is head of the department and two teachers are assigned for full time to carry on this special work. Each teacher is given half of the school registration according to years. For instance, one year she may have the first and third years of the groups and the next year the same girls of the second and fourth classes. In this way she has opportunity to follow the development of the pupil from the time she is a freshman until she is through her senior year. This work is a definite part of the school program. A girl must make two points towards her diploma in this manner and is obliged to spend a minimum of two hundred hours a year towards this credit. The year begins in June and therefore includes the summer vacation, a period in which the girls have many opportunities to practice and actually use the knowledge they have gained in school. A grade is given twice a year, in February and in June, therefore any girl reaching or exceeding her required hours and doing faithful work has the satisfaction of re-

ceiving a credit mark, which is always an incentive for further progress.

It means much more to a girl to put her knowledge into practical use while learning, rather than storing it up as usable knowledge for a day when she may need it. When knowledge and practice of homemaking are confined to the four walls of a laboratory and not put into everyday use of which they are a vital part, then they do not fulfill their real function but become useless.

The problems selected by the girls are: Clothing,—which includes renovation, darning, patching, construction of new garments, embroidering, crocheting, etc. Foods,—the preparation of a meal, assistance in preparation, making of certain dishes, invalid cookery, preserving, canning, etc. Housewifery,—care of one's own room, laundering, dusting, sweeping, cleaning of metals, care of refrigerator, use of time and labor-saving devices, planning of the housework, schedule making, marketing, etc. Millinery,—renovation of hats, making new hats, ribbon ornaments, flowers, relining hats, reblocking, etc. Art,—poster making, designing, painting, place cards, invitations, greeting cards, etc. Science,—fixing or adjusting electric door bell, putting on new washers, making iceless refrigerators, fireless cookers, etc. In fact, the girls are encouraged to practice at home any of the work that they have learned in school in relation to housekeeping and homemaking.

Rather than assign a definite problem for the entire group, we select the problem which will best fit the need of the individual pupil and try to encourage her to find a problem which needs attention at home and to work on this problem until it becomes a habit and part of her routine work. Because our girls come from all sections of the city and live under varying conditions, it is best to have them work out their own problem according to the needs of their own homes.

Each September before visiting the homes, a letter is sent to each mother explaining our aims in doing this work and asking for coöperation so that mother and daughter may work together, thereby obtaining the best results. We emphasize the fact that the duty is the girl's and the responsibility of keeping her record is on her shoulders and not on the mother's. This letter also notifies the mother that a teacher will call at the home sometime during the school year. The mothers are not notified in advance of the call other than from this letter.

In order that the girls may plan their work systematically a white plan card is given to each pupil. On this card she makes a statement of what she expects to accomplish in the two months to come. These cards are kept on file and serve as a reference for the blue card which is given out and on which is placed a statement of the work accomplished with the record of hours spent. The blue record cards must be signed by the parent and all hand work brought to the teacher for inspection if full credit is to be given. A record book is given to each girl in which she keeps her daily record, therefore it is just a matter of transferring these figures in total hours to the blue cards.

After the cards have been returned to the teacher a comparison of work planned and work accomplished is then made and helpful suggestions and constructive criticism given by the teachers.

Thus far the mechanics of the Home Project is explained, but the

actual visit to the home reveals the real vital questions of what is this training to result in, what is the future for the girl, what does this preparation do towards her earning capacity? These and other questions relating to the family circle and to society in general are discussed by the mother and the teacher. Questions relating to vocational and educational guidance are referred to the vocational counselor as well as cases for outside employment, so that the child may remain in school if practicable.

Health problems are referred to the school physician and followed up by her. Scholarship problems are discussed with the principal and the subject teachers. Very often the lack of interest in school by a pupil is traced to family and home conditions. The information gained by the Home Project teacher regarding the child is of invaluable benefit to both pupils and teachers. A careful record of the home calls are kept on file by the project teacher.

The mother greets the teacher as a friend and is confident of her interest in the girl. As one returns to a home each year it is a great satisfaction to notice the general improvement of the house, or to inquire as to the health of a sick member of the family who has perhaps recovered and is at work again. Often an older sister has graduated from this school and is doing good work at a higher school of education or else has obtained the position she has been preparing for and is placed in one of the dressmakers' shops or art studios through the Vocational Department. Many have opened tea rooms and gift shops, others have become nurses, dietitians, or teachers, while probably the largest group have become homemakers.

Although the girl may not follow the exact course on which she started, perhaps being forced to leave school before completing her high school education, at the same time she has a practical background which will be of inestimable value and use to her in whatever line she may pursue.

COUNSELORS IN MINNEAPOLIS JUNIOR AND SENIOR HIGH

Beginning with this semester, a counselor has been appointed in each Junior and Senior High School who will devote half time to the problems of educational, vocational, and personal guidance which arise with individual pupils.

This organization of counseling work is inaugurated because it is believed that data about the educational and vocational opportunities in the city should be made more available to the students; that the aptitudes, attitudes, and abilities of students should be studied and capitalized to a greater extent; and that any social problems that hamper the normal progress of high school pupils should be studied and, as far as possible, eliminated. It is expected also that the counselors will aid in adapting the educational processes of the schools to fit more nearly the needs of the high school students.

MINNESOTA UNIVERSITY COURSE IN GUIDANCE

Dr. Homer J. Smith is offering his course called "Guidance in the Schools" this quarter for the benefit of counselors, teachers of occupations, and others interested in guidance. Special emphasis will be given to the problems of collecting, evaluating, and using occupational information.

PROBLEMS OF RESEARCH IN VOCATIONAL GUIDANCE

J. A. YATES

Head of Department of Chemical and Physical Sciences, and Director of Chemical, Electrical, and Mining Engineering, Kansas State Teachers College Pittsburgh, Kansas

Address before the Vocational Guidance Section, Kansas State Teachers Association, Topeka, Kansas, November 5, 1926

Many definitions of education have been given. I like to think of education opening all the channels of usefulness and pleasure that one is capable of realizing. To my mind, one of the most important problems for a teacher is to know his student, —know his capabilities, his individual characteristics, his environment, and his inheritance. To learn the solution of these problems requires a vast amount of skill and training in matters of securing the facts necessary for properly attacking and arriving at a correct solution. A careful study of the pupil's physical body, his intellectual capabilities as shown from all known measurements and gathered from close observation of his actions, appearance, and records of his past life, is necessary. Correct data are highly important for arriving at a correct result. To correctly measure the will, perseverance, emotions, and inmost yearnings of a student is at best yet very crudely done. In this field are many problems to be solved and their solution would greatly aid all connected with educational work. Our intelligence tests are not perfect and need improvement till all educators may place the satisfactory reliance on these measurements as they have and do on physical measurements. The information we can get from observing the student's physical appearance and from his answers to our questions does not meet the rigid requirements of the exact sciences. Therefore, there is an urgent need for important improvements in methods of observation and in questioning. Some may say that we can never hope to get our measurements and data in the intellectual field and in the realm of observation as exact as we can in the Physical Sciences. This same kind of statement has often been made about practically all our inventions and discoveries. Vocational guidance is a new field in our educational work and, compared to the so-called exact sciences, very little work has been done. The field is new and the surface has hardly been scratched. So far, men with meager scientific training have been working in this field. As decades and centuries go by, workers with better scientific training and keener insight will find solutions to these and other problems. The principles which will help us to correctly advise our students will be grasped from knowledge based on facts. They will be practically as well understood as the consulting engineer's advice to his customers from his knowledge of the facts in the material world.

The problems of research in vocational guidance involve a great many phases of our educational work. The content of the course of study and methods of teaching must be adapted to the individual student,

while we teach a group and get over to the majority the idea desired, yet there are usually in every class some who fail to grasp clearly the content of the teacher's thought. Here arises the problem of individual difference which calls for solution as already suggested. From what sources may the teacher look for help in finding the stimulus that will call forth a response from the indifferent student,—a response that will awaken in him his latent powers, that will start a little bit of interest, bring into his consciousness a small flame of desire to learn something and kindle enough energy in him to at least make him put forth a little effort. The teacher having started the unfolding of the indifferent student's capabilities still needs to know both the stimuli and methods of application to keep the wish for mental growth increasing.

The curricula of our different schools in a way furnish the topics from which we are to draw the thought which will stimulate the pupil. Have we yet discovered the very best curricula? Has the last word been said in curricula building? I notice that the committee of the National Society for Studying Education on this subject has agreed on the curricula for the different grades in our elementary schools. I doubt if every member of this committee, and especially of the association, believes this piece of work is perfect. If it is not perfect there is still room for improvement. The growth of our curricula building furnishes a measure for our educational advancement. A glance at the curricula of all our schools, including the colleges and universities, a century ago, will show that they provided for instruction in the languages and philosophies largely, with a little mathematics and a very small amount of a few of the older sciences.

The organization of the land grant colleges in the different states had a wonderful influence in broadening and bettering the curricula not only for our colleges but also of the high schools and grade schools. These institutions promoted the work in the sciences from the standpoint of their usefulness, furnished training in subjects desired by the masses, and have been one of the largest factors in modifying the program of our schools and in stimulating interest in their work. The wonderful growth in the number of high schools in the past fifty years and the number of students attending, together with the expanding curricula of these schools, shows in the most vivid way the effect upon the interest in school work and attendance that is brought about by furnishing a varied course of study. The introduction of the manual arts and home economics in teacher training institutions has also been a factor in changing the ideals of our educators in curricula building. The introduction of Smith-Hughes work into our educational system, stressing vocational work, is another factor that is having a fine influence in shaping our education system. The research work that is being done today in the various fields of education is far greater than was done in any period of our history. Educators are not agreed in course content for our high schools. Therefore, there are many problems for investigation in both our junior and senior high schools in subject matter offered and in method of presentation. The means we have of knowing the capabilities of the student in junior and senior high school, even in colleges, are very meager. At the present time we use self-analysis blanks; note the likes

and dislikes, the initiative, the attitude, the perseverance; and measure, in every way we know from all the facts we can observe or in other ways find out, the capabilities and possibilities of the youth we, as teachers, are to guide. We know that our knowledge in this field of our work is very limited at the present time, and still progress is being made each year. Never in our history has so much thought been given to vocational guidance as is being given at the present time. The fields of child psychology, vocational psychology, educational psychology, along with the philosophy of education, are calling for investigation and offering rich returns to those who will make contributions in any of these fields.

There is another factor in vocational guidance which must be given full and careful consideration. When educators conceive that vocational guidance is something which leads up to a definite, irretrievable, and complete choice, both education and the chosen vocation are likely to be rigid, hampering further growth. We must be careful not to make a mere machine of the individual. We are not interested in making a man or woman to be only a cog in some industrial plant, a simple piece of machinery doing its part and nothing more. Many examples of this type of worker may be found today in our great industrial plants. If our advice as educators is to be of the highest, we must be careful that the vocational preparation of students is such as to engage them in a continuous reorganization of aims and methods. Again we find problems the solution of which perplexes us and in which we seek further light. How can we get the kind of environment needed to stimulate in such a way that it will liberate and organize all the capacities of our students? The adjustment of our aims in education to the capabilities of the taught is of great importance. Making the suggestion and securing the right environment furnishes an abundant supply of problems.

Another question upon which we need further information is, how far shall adaptation to external aims be insisted upon from authorities above in our school system? How far shall the democratic spirit of the individual student and teacher prevail? What is the happy medium that will hit the desired work in every case?

In the judgment of the writer the solution of the problems mentioned, along with many others in this new field, will be found when men and women who have a thorough training in the material and mental sciences devote themselves earnestly to the task. A good beginning has been made, but only sufficient work has been done to show something of the field. Since the problems are largely scientific in their nature, should we not enlist our most skillful scientists to enter this field of vocational guidance? The scientifically trained mind and hand will devise plans and find ways of mastering the principles envolved, which are hidden from us now. Therefore let us enlist more properly trained workers in this large and important educational field.

EDITORIAL DEPARTMENT

This Changing World of Ours

If all the automobiles now registered in the United States were assembled into one parade they would form a solid column, ten cars abreast, reaching from New York City to Seattle, down the coast to San Francisco and back on the Lincoln Highway to New York City. They would travel at a rate which would cause a car to pass a given point in the route every three months. It would take a lake one mile across and forty feet deep to furnish the gasoline to keep the parade in motion. If all the tires were linked together they would form a chain extending entirely around the world.

At every mile cross-road along this parade route there would be seven sales agencies employing thirty salesmen ready to sell a new car to replace the one in each fourth row which drops out each trip. Every seventy feet would stand a would-be mechanic ready to help the unfortunate owner with his mechanical trouble. Every four miles would be a church holding at least one funeral each month for those killed by this parade.

Twelve per cent of the steel, fifty-three per cent of the glass, sixty-nine per cent of the leather, eighty-three per cent of the rubber, twelve per cent of the copper, and sixteen per cent of the tin produced in the United States is consumed in the manufacture of automobiles.

Thirty-five years ago there were only 14,800 cars in the United States, while now there are over 22,000,000, affording enough room to seat comfortably at one time every man, woman, and child in America. We now have more cars than telephones.

This twenty-five year romance of the automobile industry as it developed into America's largest single enterprise is indicative of our dynamic social and industrial order. In this age of specialization, diversified interests, and constantly changing conditions, is it any wonder that youth is confused, parents anxious, and vocational counselors much concerned about the occupational future? Is it any wonder that only a small per cent of our boys today choose the occupations of their fathers while a hundred years ago only a small per cent departed from the beaten path followed by the parent?

Twenty years ago how many boys would have chosen to cast their lot with the automotive industry? Five years ago how many would have considered seriously the field of aviation as a career? Today, after Lindbergh has demonstrated the possibilities of commercial aviation, it is unsafe to put the question.

This uncertainty as to the constancy of the future has always been with us to a degree. From a study of Who's Who in America it has been found that many of our eminent persons were uncertain as to their occupations, some changing as many as six times, with sixty-three per cent changing at least once.

Who's Who Changes in Occupations.[1]

No.	%	Times Changed
104	63	1
28	17	2
23	14	3
6	5	4
2	1	5
1		6

It is not only interesting to note the frequency of change of occupation but it is significant to note that a large per cent changed between the ages of twenty-five and thirty-four.

Ages at which Changes were Made.

Age	No.	%
below 15	7	3
15-24	71	28
25-34	89	35
35-44	54	22
45-54	20	8
55-64	9	3
over 60	2	1

It would be interesting to know why these men chose their first occupation and why they made changes. Was any choice the result of a scientific study of the situation from the standpoint of personal traits, occupational requirements, or social benefits?

Is it true that young people today are likewise as uncertain about their future, while pursuing their educational programs more or less blindly, some even using the school as an alibi for postponing the "evil day" when they must seriously consider occupational life?

How secondary school pupils are thinking along occupational lines is illustrated in the following table which not only shows their occupational interests but also the change of interest as they pass through the four years of school.[2]

[1] Kitson, H. D. Psychology of Vocational Adjustment.

Vocational Choices of Ninth- and Tenth-Grade Pupils Compared with Choices of Eleventh- and Twelfth-Grade Pupils, by per cents.

Occupation	Grades 9-10	Grades 11-12
Agriculture	72.4	27.6
Professions	56.3	43.7
Business	59.1	40.9
Industrial	79.0	21.0
Nursing, etc.	62.7	39.3
Fine Arts	49.2	50.8
Undecided	69.3	30.7

Total number of cases, 8120.
Total number of high schools, 48.

If this table is indicative of the general occupational attitude of our high school pupils and these choices are carried into actual practice, what would be the effect upon our economic life? In comparing occupational choices made by seven thousand Illinois high school seniors with actual occupational life as revealed by the 1920 Census, it is very evident that some decisions must be modified even when we realize that the group is selected.

Percentages of 7000 Illinois High-School Seniors Choosing Various Occupations Compared with Percentages of all Persons over Eighteen Years of Age Engaged therein according to the 1920 Census.

Occupation	Boys	
	Seniors	Census
Clerical work	3.7	4.3
Engineering	30.4	0.7
Farming and Forestry	9.6	28.8
Law	6.8	0.4
Medicine	7.1	0.7
Philanthropic work	0.9	0.5
Public Entertainment	1.4	.3
Publicity	3.6	0.1
Mfg. and Mech. (skilled)	5.2	25.0
Transportation (skilled)	1.5	6.8
Teaching	9.8	0.6
Trade	16.7	10.9
Miscellaneous professions	2.7	0.3
Miscellaneous	0.7	20.6

Where in the life of the individual

[2] Schmidt, H. W. Industrial Arts Magazine (1923).

should the vocational guidance influence begin and where does it reach the point of diminishing returns? What portion of the enormous energy within the guidance movement is functioning in the elementary schools, how much in the secondary schools? Should the vocational guidance now being done in colleges and universities be a criterion for what should be done? Should industrial and commercial organizations depend upon other agencies for guidance of personnel before and during employment? Can the Y. M. C. A., Y. W. C. A., K. C., Boy Scouts, Girl Scouts, and other agencies function in a guidance capacity?

It is not our purpose to answer these questions in the editorial page but we do hope to stimulate thought along these lines. One of the problems now calling for very sober thought is concerned with guidance in our colleges. Several institutions are opening guidance bureaus this fall and some are groping more or less in the dark. Several institutions have been conducting guidance activities for some time but not many are sure as to their final objective.

Bearing in mind some of these questions, we have selected several articles which may guide us in our thinking. In this issue we present a description of what a large industrial concern is doing for its employees. The guidance activities of the General Electric Company at West Lynn is an outstanding program being copied by many concerns. The article on Guidance in the Boys' Continuation School, and the one on Effect of Working on a Pupil's School Success, should be of special interest to those dealing with the older boy who must work. Dr. Toops has given us an insight into the subject of Testing College Students which is quite apropos as we think of guidance in the colleges. A practical application of guidance is illustrated by the article, The Home Project and Its Relation to Educational and Vocational Guidance. In order to be up-to-date we have asked Major Emmons of the U. S. Air Corps to prepare for us the article, Aviation as a Career.

Mr. J. A. Yates has also given us some pertinent information in his article, Problems of Research in Vocational Guidance.

We also have at our disposal articles such as the following which we hope to publish in early issues: "The Girl Scouts as a Guidance Agency," "Are Occupational Studies and Investigations Proving Their Worth?", "The Use of Mental Tests in Guidance," "Women and the Christian Ministry," "Interest Tests in Guidance," "Vocational Choices of College Students," etc.

TESTING AND TRAINING THE INFERIOR FRESHMAN

Dr. Edward S. Jones has published in the University of Buffalo Studies (Vol. V. No. 3) the results of a significant experiment at that university in "Testing and Training the Inferior Freshman".

Between 30 and 40 students from the lowest two-fifths of their high school group were given tests and special training for a period of three and a half weeks (on an extra tuition basis) prior to entering college. As a result, these students, ordinarily considered "poor risks" were enabled to compete successfully with other college students and to finish the first semester with average grades equal to those of students from the middle fifth of high school groups.

A full report of this investigation appears in the October number of "*The Personnel Journal*."

FIELD DEPARTMENT

VOCATIONAL GUIDANCE AT HARVARD

The Bureau of Vocational Guidance at Harvard University has recently acquired new offices on the second floor of Lawrence Hall. With the construction of the new Business School buildings, all of Lawrence Hall has been turned over to the Graduate School of Education and the building has been painted throughout. The Library of the Bureau of Vocational Guidance is housed in a separate room but now attached to the rest of the Library of the Graduate School of Education. There is a workroom for the secretaries, an office for the Director of the Bureau and an office for the Editor of the Magazine. An attempt is being made to collect some of the early literature in the field of vocational guidance and to have it filed for historical purposes.

The Harvard Bureau of Vocational Guidance has recently compiled additional notes relative to the individuals who were described in the book "Case Studies in Educational and Vocational Guidance." Follow-up data on many of these cases is included and additional suggestions for the use of the book. These notes are in mimeographed form and may be obtained free on application to the Bureau of Vocational Guidance.

The word "tryout" printed without the hyphen has at last made its appearance in the dictionary. It is included in the Supplement to the Webster International and is properly defined. We can now use the word without fear that people will refer to it as a barbarism or discuss it in any other invidious way. The marvellous growth of the tryout and exploratory idea in industrial, agricultural and commercial fields for purposes of vocational guidance is a great satisfaction to all workers in the field.

GUIDANCE AND PERSONNEL AT COLUMBIA UNIVERSITY

Mr. Roy N. Anderson has been appointed assistant in Guidance and Personnel at Teachers College, Columbia University. Mr. Anderson was formerly director of the Employment Bureau at the University of Denver.

A new course, Field Work in Guidance and Personnel, has been instituted in the university. In this course students are assigned to vocational guidance agencies in the city where they serve as apprentices while receiving their theoretical training at the university.

Another innovation is a course in research in personnel offered jointly by Dr. H. D. Kitson, Dr. Paul F. Brissenden and Dr. A. T. Poffenberger, representing all the divisions of the university interested in personnel problems.

RESEARCH CONFERENCE DEALS WITH HUMAN FACTORS IN INDUSTRY

A conference will be held at the Hotel Pennsylvania in New York City on Thursday and Friday, November 17 and 18, under auspices of the Personnel Research Federation, to promote scientific investigations along the following lines:

Research in Susceptibility to Accidents and Accident Reduction.
Study and Measurement of Leadership.
The Personal Interview: Its Technique and Reliability in Fact-Finding Discovery and Measurement of Mechanical Abilities.

At the morning sessions of the conference there will be papers and reports of researches conducted by members of the Federation. In the afternoon small groups will meet for Round Table Discussions on the above topics. Each group will make plans for research and submit recommendations at the close of the conference. Mr. Eugene J. Benge of the Philadelphia Rapid Transit Company will be Chairman of the Round Table on Accidents. Dr. Floyd H. Allport, of Syracuse University, and author of "Social Psychology," will conduct the meetings on Leadership. The Round Tables on the Interview, and on Mechanical Abilities, will be under the chairmanship of Dr. Bruce V. Moore of Pennsylvania State College, and Dr. M. S. Viteles of the University of Pennsylvania, respectively.

Among the papers to be presented will be the following: "Men Who Have Accidents: Individual Differences Among Motormen and Bus Operators" by Dr. C. S. Slocombe, Investigator, Personnel Research Federa-

tion; "Accident Prevention" by Dr. C. P. Segard, Assistant Secretary, Third Avenue Railway System, N. Y. C., "Political Leadership" by Dr. W. E. Mosher, Director, School of Citizenship and Public Affairs, Syracuse University; "Tests for Executives, Salesman and Engineers" by Mr. Johnson O'Connor, General Electric Company; "Recent Developments in Industrial Psychology in Europe" by Col. Walter V. Bingham, Director, Personnel Research Federation.

NEW BUREAU TO AID CHILD STUDY

"Children, The Magazine for Parents", announces the organization of a Group Service Bureau dedicated to furthering the interests of Parent-Teacher Associations, Women's Clubs and other groups interested in child study.

The Bureau has available for free distribution two pamphlets, "1927-1928 Program on Child Training", and "Group Study for Parents". The former is published because of the many requests from Parent-Teacher Associations and mothers' clubs for a comprehensive study program for use during the coming season. The latter pamphlet describes the best methods of organizing groups interested in the discussion of child training methods, and contains a recommended list of books on child study.

The Group Service Bureau will supplement and not in any way duplicate the services being rendered by the National Congress of Parents and Teachers, the General Federation of Women's Clubs, the Child Study Association of America, and the American Association of University Women.

The Bureau maintains a Parents' Library, and issues each month a program for group discussion, prepared by the Child Study Association of America, based on the leading article in "Children, The Magazine for Parents". The address of the Group Study Bureau and the magazine is 353 Fourth Avenue, New York, N. Y.

NEW SERIES ON HEALTH EDUCATION

The Women's Foundation for Health, 370 Seventh Avenue, New York City, has authentic and exceedingly valuable material on health education, easily adaptable to the needs of universities, colleges, normal and high schools.

For the benefit of those who do not know the Foundation may we say that it is a social organization with a program based entirely on the development of positive health among apparently well adults through health education and demonstration. At the beginning of its activity in 1922 the Foundation issued the Positive Health Series, a set of six pamphlets contributed to by the best authorities on the subjects included and vised by the Council on Health and Public Instruction of the American Medical Association whose recommendation for "the general adoption of the Foundation's program as a means of improving health standard" is given in the initial pamphlet of the Series.

Although this Series was prepared especially to serve as a common text for the adult lay individual, institutions of learning in the first two years after its appearance made such a demand for it that the Foundation began a simple circularization suggesting its value to departments of health and physical education. The Foundation material is now in use in varying quantities in over 800 educational institutions, both higher and secondary.

Following is a brief statement of the contents of the Series:

PAMPHLET ONE—Part I. Interpretation of the Health Examination. Part II. Individual Exercises—Illustrated.

PAMPHLET TWO—Part I. Direction for a Local Set-up for Examination. Part II. Popular Presentation of Positive Health. Part III. Posture, Feet and Shoes.

PAMPHLET THREE—Nutrition, by E. V. McCullum.

PAMPHLET FOUR—Mental Health, by White and Taft.

PAMPHLET FIVE—Reproduction, by Walter B. Cannon, M. D.

PAMPHLET SIX—Recreation, by Lindeman.

NEBRASKA VOCATIONAL GUIDANCE ASSOCIATION

Recently a few interested persons formed themselves into a committee to bring the subject of vocational guidance before Nebraska educators and employers. Those present at the first meeting were H. E. Bradford, Margaret Fedde, Chas. Fardyce, C. A. Fulmer, T. V. Goodrich, Amanda Hepner, J. R. Patlow, Harriet Towne, and C. C. Weidemann.

A temporary organization has been formed and the final report on the constitution is to be made at the meeting October 28.

We welcome this newly organized association into the fold and hope the contagion will spread to other parts of the middle west.

NEWS NOTES

The University of Chicago has organized a vocational guidance service in the form of a Board of Vocational Guidance and Placement. The Executive Secretary is Mr. W. H. Cowley.

Professor Jesse B. Davis of Boston University has again entered the field of vocational guidance, this time with a course in educational and vocational guidance in the School of Education.

Dr. Henry J. Doermann, the author of "The Orientation of College Freshmen," has been appointed President of the University of Toledo.

Dr. George E. Myers has just published a book entitled "The Problem of Vocational Guidance."

Columbia University has issued a mimeographed bulletin of twelve pages setting forth all the courses in the University in the field of Industrial Relations, Labor and Personnel Problems, Vocational Guidance, and Industrial Education, which are to be given during the academic year 1927-28. Professor Kitson is giving courses in field work in guidance and personnel, survey of the vocational guidance movement, analysis of vocational activities, and analysis of the individual.

The American Management Association holds a convention at the Palmer House, Chicago, November 1-4, 1927, with several topics directly interesting to counselors: Incentives for Executives; Discovering Junior Executive Talent; Creating and Maintaining Morale; Measuring Office Output; and Compensating Office Employees.

School and Society, August 27, 1927, contains a statement on the Cooperative Experiment in Personnel Procedure being carried on under the direction of the American Council on Education, to which Mr. Rockefeller has contributed the amount of $20,000 a year for three years. The program includes (1) to inform the colleges and universities concerning the best personnel methods; (2) to prepare a personal record card which should afford personal information to teachers and administrators at the college level; (3) to prepare achievement tests and make available all the facts concerning them in an effort to stimulate such testing; (4) to develop objective and useful measurements of character; (5) to prepare vocational monographs. The executive committee is as follows: Messrs. Herbert E. Hawkes, of Columbia University; H. W. Holmes, of Harvard University; C. Riborg Mann, director of the American Council on Education; Walter Dill Scott, president of Northwestern University; and Harry R. Wellman, of Dartmouth College.

INVESTIGATING THE INTERVIEW

The importance of the interview as a tool in research and in routine personnel procedure, and the meagerness of present knowledge about its possibilities and limitations as a source of data, have led the Personnel Research Federation's Committee on Methods of Research in Industrial Relations to formulate plans for a systematic investigation of the interview. The chief objects of such investigation are (1) to develop the best practicable techniques of getting information through personal interview, and (2) to develop methods of measuring the reliability of information so obtained. It is hoped that funds may be secured to cover the salary and expenses of a competent investigator to work on this project for one year under supervision of the committee. The members of the committee are: Dr. W. V. Bingham, Mr. Glenn A. Bowers, Dr. John R. Commons, Dr. H. S. Person, Miss Florence C. Thorne, Dr. Clark Wissler, Miss May Van Kleeck, and Dr. R. S. Woodworth.

Outline of Proposed Investigation

1—Survey and digest of the literature.
2—Search for the best techniques developed in the experience of industrial investigators, social case workers, anthropologists, psychologists, physicians, lawyers, detectives, and others.
3—Selection of the most promis-

ing procedures for experimental comparison with usual interview procedures; and determination of the methods to be used in measuring the comparative reliability of the results.

4—Experimental try-out of these procedures in connection with typical field investigations of industrial relations problems, and in connection with the routine interviewing of selected employment managers and others. (The leaving interview is a peculiarly difficult and important one, and presents the opportunity for exercising skill in getting at the real underlying reasons for leaving rather than the alleged ones.)

5—Analysis of findings as to the most searching and reliable techniques of interviewing and the most dangerous pitfalls.

6—Preparation of the results for publication.

One year's work of this character should yield (1) a clear picture of the results of many years of practical experience with the interview as a means of fact-finding, (2) a method of testing data obtained through the interview for reliability and freedom from bias, (3) practical suggestions toward improvements of technique in interviewing, and (4) a definition of specific problems for further and more intensive research.

VOCATIONAL GUIDANCE IN A LARGE CITY HIGH SCHOOL

MAUDE MCCAIN

Vocational Adviser, Theodore Roosevelt High School, New York City

The problem of vocational guidance in a large city high school is a complex one. Our several thousand students represent not only several thousand personalities and ambitions (or lack of ambition) but they also represent dozens of nationalities, with all the different races and religions.

To many of the parents of our students, high school means a wonderful opportunity for their children, an end in itself, the breaking down of a social barrier. To some, it simply means a place for the child to stay until old enough for "working papers." It is rather the exceptional parent who sends the child to high school with some definite idea of making the best use of the school in educational and vocational ways.

The pupils, therefore, come to us with little or no real aim. In no city are there more opportunities in both education and vocation than in New York City, and yet I doubt if in any city the high school pupils know less about these opportunities than does the average high school student here.

How to help these students to find themselves is the problem which we are trying to solve. In our own particular school, the Theodore Roosevelt High School, under the direction of the Principal, William R. Hayward, we are working out a general program of vocational and educational guidance. We start with the assumption that at some stage in the growth of a human being a sense of personal responsibility must develop, that everyone sooner or later must make decisions for himself or herself; then why not begin making decisions now? We therefore base our vocational guidance work on the giving of information rather than the giving of advice. The decision in the last analysis must be made by the one most vitally affected,—the student.

Our program embraces talks from executives of various industries; pictures; news items; coöperative work; reports from our graduates

and part-time workers; vocational magazines; a course in local industries; personal and group talks by the vocational adviser; and various other items.

One of our most valuable means of furnishing vocational guidance has been brought about by the preparation of what is known as vocational and educational information pamphlets. In this way we try to bring before the student information about various subjects in which he is interested or in which we wish to arouse his interest. These pamphlets are not elaborate, but state as concisely as possible the outstanding features of the course or industry or special line of work for which information is desired.

Just as the big city high school is in its infancy, so is our vocational and educational guidance program. But we are creeping along, and hope to stand and walk later.

COMING EVENTS

American Vocational Association, Dec. 17, 19, 20. Second Annual Convention—Los Angeles. President, Dr. E. A. Lee, Univ. of California, Berkeley.

National Education Association, Feb. 25—March 1. Department of Superintendence—Boston. President, Joseph M. Gwinn, Supt. of Schools, San Francisco.

National Vocational Guidance Association, Feb. 23, 24, and 25. National Convention—Boston. President, Dr. A. H. Edgerton, Univ. of Wisconsin, Madison.

THE PRINCIPLES OF VOCATIONAL GUIDANCE

AS FORMULATED AND ADOPTED IN 1924 BY THE

NATIONAL VOCATIONAL GUIDANCE ASSOCIATION

The principles of guidance as herein presented are treated from the standpoint of the teacher, school administrator, vocational counselor, parent, social, civic, and religious worker, and personnel worker in employment. Upon these workers, according to their opportunity, must rest the responsibility of vocational guidance.

The major divisions of this statement of *Principles* are:

I. A Definition of Terms
II. The Need for Vocational Guidance
III. The Aims of Vocational Guidance
IV. The Content of Vocational Guidance
V. Methods in Vocational Counseling
VI. The Organization and Administration of Vocational Guidance
VII. The Equipment and Training of Vocational Counselors
VIII. Conclusions
IX. The Outlook in the Field of Vocational Guidance

PRICE, AT COST OF PRINTING, 5 CENTS A COPY, $4.50 A HUNDRED POSTPAID

THE BUREAU OF VOCATIONAL GUIDANCE

Graduate School of Education, Harvard University, Cambridge, Mass.

REVIEW DEPARTMENT

THE PROBLEM OF VOCATIONAL GUIDANCE. George E. Myers. The Macmillan Company, 1927.

Dr. Myers has done a good service for the cause of vocational guidance. He has written a comprehensive and careful book which expounds in 300 pages the main principles and problems involved in vocational guidance, and has thus paved the way for the favorable reception of the idea in the minds and professional work of many people who have not yet studied the subject.

One important point usually neglected is an adequate exposition of the need for vocational guidance, and Dr. Myers has covered this in three chapters, showing the present haphazard methods, the waste involved, and society's responsibility. Chapter V, on vocational information courses, is probably the least adequate. He very wisely points out the need for special classes as against the idea of using the present studies of the curriculum, but he ends the chapter with an exposition of Rotary Club and similar work which, to say the least, is questionable as compared with seriously preparing teachers for the courses in occupational information in some such way as teachers of mathematics and Latin are prepared.

The chapter on exploratory courses is excellent, though the flat statement that such courses ought to be seriously checked up to see if they are functioning ought, if it is applied to one course, to be imposed upon all the alternatives of exploratory work, geography, arithmetic, or whatnot, which never seem to be checked up nor asked to do much in the way of modifying behavior of children. Exploratory experiences also have civic, homemaking, and recreational values besides the vocational. Another valuable chapter is that on rural communities.

MANUAL FOR TEACHERS. Mildred E. Lincoln. To Accompany Gowin and Wheatley's *Occupations*, Revised by John M. Brewer. Ginn and Company, 1927.

Miss Lincoln is counselor in educational and vocational guidance, Monroe High School, Rochester, and instructor in the extension division of the University of Rochester. She has discussed the need, aims, viewpoint, and method of the class in occupations, the organization of the work, its relation to the other elements in a comprehensive program, and the subject matter of such a course. There are twenty pages of sample lessons which have not heretofore been published, and a wealth of suggestions for the teacher.

ADULT EDUCATION. Joseph K. Hart. Thomas Y. Crowell Company, 1927.

In "Adult Education" Dr. Hart has given a thought-provoking discussion of the sociological and psychological factors involved in the new movement for adult education and a challenging criticism of the fallacies in our present public school system. Those who are themselves not too much steeped in the provincial-mindedness, prejudices, and folkways which he decries, will find the book very stimulating and convincing. Its philosophy will make a particular appeal to guidance workers.

The industrial revolution brought about by the invention of the steam engine piled village upon village, and fostered the growth of huge cities. In this change we have lost the human element of the older village life. Industrial organization must affect politics, education, morality, religion. These fields have not kept pace with the changes in industry. As a consequence there has come a great gulf in community life, a gulf which constitutes the greatest problem of education. There is a gulf in the individual's life; such standardization has come about that the ancient loyalty to the craft and pride in good workmanship have disappeared. "One can scarcely be 'loyal' to a Ford nut."

Democracy is still a vision of the future and adult education has a problem,— to make clear the outlines of a genuine democracy and help realize its still unsuspected meanings. Theoretically the individual was freed and democracy emerged between the fifteenth and twentieth centuries; but since the children continued to be educated in the old ways, knowledges, and attitudes this education of the children defeated what the progress of adults accomplished. No one understood the psychological meaning of the democratic movement; the psychology of democracy is far different from that of autocracy and repres-

sion. Modern education has lagged behind the needs of the times. Even now it lingers in the by-ways of the past due to the fallacy that it is primarily concerned with the teaching of children.

Dr. Hart makes the challenging statement that the invention in the latter half of the nineteenth century of universal compulsory schooling dates the failure of education as far as preparation for life and work in the democratic community. "The fact that compulsory schooling has turned out to be a sort of intellectual canning factory—a factory which cannot, however, guarantee the contents of the cans—was not and could not have been foreseen from the beginning." The author considers some of the reasons why our elementary education fails to meet the problems of a democracy which is being continually changed by science and industry.

Our national life—politically, industrially, educationally—has been drifting towards greater centralization; this is, as he calls it, "The Great American Tragedy."

Under "Adventurers in Adult Education" he discusses lyceums, institutes, the Chautauqua movement, university extension, libraries, summer schools, social settlements, and many other types. But there are more fundamental factors; the institutions of daily life, the radio, movies, newspapers. Recent developments are to be found in the American Association for Adult Education formed in 1926.

In the following chapter is a criticism of our current educational psychology. Freedom, creative experience, genuine growth are to be found only in escape from the academic type of psychology with its standardized technics and methods. What is needed is a social psychology "that will release growth, stimulate intelligence, employ science, and translate into actual social relationships the freedom we all talk about so much."

Dr. Hart sets forth various types of adult education work with emphasis on their social results. The ultimate meaning of adult education is not education of those over twenty-five. Let the Chautauqua, summer school, and extension courses carry on for these. Our real task is that of making sure that we shall eventually get generations of adults who will have escaped the deficiencies and inhibitions of the present and not have to be endlessly re-educated. As an example of real adult education he describes briefly the Danish system of Folk High Schools for young people between eighteen and twenty-five.

In the chapter "From Mechanism to Insight in Education" the author relates the substance of his discussion to conditions in our American community. He concludes by stating again the task of education. By scientific method it must save civilization from its own dogmatisms and when free experiences have been opened up to children and adults, there will come a freer life "and the promise of that longed-for intelligent civilization of the great future."—Florence J. Lucasse.

RURAL LIFE AT THE CROSSROADS. Macy Campbell. Ginn and Company, 1927.

In the wake of recent interest centered upon national legislation to assist the farmer and the cooperative marketing of food supplies, this book is a most timely one. It throws the high light upon the increase of tenantry in our country, the depreciation of farm buying power, and the rapid growth of urban population to make them the outstanding elements in picturing an alarming condition. The remedial measure stressed is cooperative marketing, already well established in a certain few products and much in need of further extension through popular understanding and support. Group bargaining, very highly developed in the industrial world, the author contends, has given us our cities with good schools, higher standards of living, and greater opportunity for leadership. Group bargaining equally well developed for food products should create similar conditions for rural districts. As the farm situation, social as well as economic, with its attendant evils of poor schools, bad roads, lowered mental capacities, and discouraged workers is not one for legislation but one demanding education towards means and methods, the book is written to appeal to all teachers urban and rural.

Mr. Campbell, for fifteen years a student of this problem, has assembled many facts into forceful statements and proofs. Well selected illustrations add to his clear and interesting style. It should be read by every teacher of occupations—and by all interested in guidance—Grace C. Jones.

MEASURING MOTOR ABILITY. D. K. Brace. A. S. Barnes and Co., 1927.

Two scales, A and B, each consisting of 15 motor stunts, selected from an initial list of more than 70 tests so as to sample, in their author's opinion, a wide variety of types of reactions in "native motor ability" involving a general functioning of the body musculature, not measuring "acquired skills such as throwing basketball goals, high jumping, etc." nor "a special and re-

stricted muscular reaction, such as tapping, tracing, and spearing," and not requiring any equipment other than a watch, pencil and scoring blank, were constructed. Each stunt is scored simply "success" or "failure." The scoring is reasonably objective, a technique having been worked out whereby the pupils themselves may score each other in groups of up to 100, the recording one-half of the group scoring the performing one-half and *vice versa*, alternately. Forty minutes are required.

Typical stunts are: "A-13, Jump into the air and clap the feet together twice and land with feet at least two inches apart." "B-21, Touch the tips of the fingers to the floor without bending the knees." Each stunt is demonstrated but no practice is allowed. From statistical considerations two equivalent scales, M and N, consisting of 10 stunts each, were finally constructed. The reliability and validity of the tests are discussed, as are also the effects of retesting after one year, and of pupils scoring each other. This scale, in the reviewer's opinion, is an important contribution to our slowly growing list of tests for the measurement of motor ability. Its greatest shortcoming is that the author gives us eventually only twenty tests instead of the 70 or 80 which from the author's evidence is about the minimum number required for acceptable reliability. Proficiency tests for skill in basketball, indoor baseball, and indoor soccer were devised. Their correlations, and also those of track and field events, with the motor ability tests are discussed.

HARMONY BETWEEN LABOR AND CAPITAL. Oscar Newfang. G. P. Putnam's Sons, 1927.

This book begins with the statement: "With the exception of international war, there is no cause of disturbance to the welfare of nations so widespread and so destructive as industrial warfare. Not only has it completely destroyed responsible government in two of the great nations of Europe and established in their stead the dictatorship of a minority, but in all other great commercial countries the effect of industrial strife has been extremely disturbing and destructive to the economic welfare of the average citizen and of the entire nation." The book discusses the wage system, employers' methods, the commodity question, labor and capital (labor is not a commodity, the author states, but capital is), and goes on to various solutions. There is a fuller discussion in this book than in the others mentioned herewith of the international aspects of the labor problem.

PURPOSIVE EVOLUTION. Edmund Noble. Henry Holt and Company, 1926.

In the chapter, "Does Evolution Explain?" Mr. Noble has raised some interesting questions relative to unsolved problems in connection with the theory of evolution. He points out that the physicists have been forced to distinguish between motion which, like that on the surface of the earth, is accompanied by friction, resistance, and action and reaction, and other kinds of motion, as is alleged in the case of the revolving planets, which does not meet with resistance. On page 128 he discusses the difficulty in the hypothesis of the ether and other important questions.

In general he maintains that, whereas, evolution has always stood for the idea of continuous and continuing differentiation, the progress of life seems to bring integration and unity rather than differentiation.

PERSONNEL ADMINISTRATION: Its Principles and Practice. Ordway Tead and Henry C. Metcalf. McGraw-Hill Book Company, 1926. $5.00.

This is a revised edition of the original book. It is a comprehensive and thorough discussion of the problem of employment management and is dedicated appropriately to Robert G. Valentine. There is a good discussion of education, in a hundred pages, and of joint relations. Technical material on hiring, working periods, physical examinations, safety, etc., is thoroughly adequate and very helpful to the vocational counselor.

HUMAN WASTE IN EDUCATION. Anna Y. Reed. The Century Co., 1927.

Dr. Reed discusses the findings of various surveys which indicate the waste of child time and human productive power in the lack of educational guidance. The book is statistical and constructive and discusses the question of qualitative results as well as quantitative. The last chapter deals with constructive experiments and recommendations and suggestions for the elimination of waste

YOUR MONEY'S WORTH. Stuart Chase and F. J. Schlink. The Macmillan Company, 1927.

This book should be recommended by the counselor to any boy or girl interested in salesmanship or advertising. It gives an unpleasant picture, but a necessary one to face, of the quackery and duplicity attaching itself to modern business. No doubt

many of these faults will have to be remedied before the pupils in our schools enter these occupations. No doubt there will be much work to be done, and workers of the future should be prepared to take their part.

MENTAL TESTS IN CLINICAL PRACTICE. F. L. Wells. World Book Company, 1927.

Dr. Wells has a chapter on "Vocational Problems," which discusses ability and incentive, application of tests, specialized tests, and the relation of vocational guidance to the total adjustment. The treatment is conservative and helpful, with attention not only to tests but to mental hygiene as well.

VOCATIONAL REHABILITATION IN THE UNITED STATES. Federal Board for Vocational Education, Bulletin No. 120, June, 1927.

This is a timely history, in 100 pages, of the whole problem of vocational rehabilitation. There is a discussion of the evolution of the movement, the national program, principles and methods, and the state program and federal program.

"WE". Charles A. Lindbergh. G. P. Putnam's Sons, 1927.

This book will be widely read by boys and girls and should have the careful consideration of every individual considering aviation as a career. The long, hard period of training may well be stressed, and the personal qualities required both in the learning period and in the career.

HOW TO APPLY FOR A POSITION. Maurice H. Weseen. College Book Store, Lincoln, Nebraska, 1927.

The author of this brief work presents, with apt and abundant specimen letters, comprehensive and admirably clear instruction regarding the written application for a position. Some consideration is given, also, to the interview. The work is concise, readable, and practical.—Wm. F. Linehan.

POLITICAL AND INDUSTRIAL DEMOCRACY, 1776-1926. W. Jett Lauck. Funk & Wagnalls Company, 1926.

Mr. Lauck has long been concerned with federal investigations concerning labor. He begins with a history of industrial democracy and discusses "The Post-War Revolt against Industrial Autocracy," the attitude of the churches toward industrial reconstruction, the fundamentals of industrial democracy, the extent of the movement, outstanding examples, employee representation plans, and the practical basis that is necessary. The book is one of the most stimulating in this field and indicates the problems with which workers of the future will have to deal.

THE CASE-CONFERENCE MEHOD. Paul McKendree Reading. Edward Drummond High School, Toledo, Ohio. 1927.

Based on classroom experiment, this brochure discusses with objective precision the technique of the case method in teaching ethics. The teacher will receive from this work valuable insights into the possibilities and the limitations of the discussion method. Included are a stenographic report of a case conference and a bibliography.—Wm. F. Linehan.

AMERICAN LABOR AND AMERICAN DEMOCRACY. William English Walling. Harper & Brothers, 1926.

Dr. Walling's book is a thoroughly judicial account of the problems connected with capitalism and politics. There is an economic basis in the discussion but the chief stress is related to government. An analysis of the various political parties which have interested themselves in labor problems is given. The conclusion is distinctly against government ownership but in favor of social supervision and cooperative control.

THE LABOR PROBLEM IN THE UNITED STATES AND GREAT BRITAIN. Warren B. Catlin. Harper & Brothers, 1926.

Professor Catlin discusses the origin of the labor problem, the six or eight grievances registered against capitalism, the organization and characteristics of unionism, and the various proposals for amelioration and cure. Collectivism in Great Britain and America is discussed and the book ends with a working creed for the correction of evils and the constructive working out of a practical plan. Labor representation and cooperative management is the essence of the solution proposed.

GIRLS WHO DID. Helen Ferris and Virginia Moore. E. P. Dutton & Company, 1927.

This book is a discussion of the life problems and successes of nineteen women workers of the present day, with a final chapter addressed to "A Girl Who Is Wondering about Herself." The various occupations are well represented and the style of writing is attractive and interesting to girls. It will be a decided addition to the counselor's library and many girls will want to own it.

ALL ROADS LEAD TO

BOSTON

for the

NATIONAL CONVENTION

of the

VOCATIONAL GUIDANCE ASSOCIATION

FEBRUARY 23, 24, 25, — 1928

This convention is just before the meetings of the Department of Superintendence and Allied Organizations of the N. E. A. February 25 to March 1, 1928.

MAKE EARLY RESERVATIONS AT HOTEL STATLER

"HARNESSING GUIDANCE AND PERSONNEL FOR SERVICE IN 1928"

will be the general topic

Any suggestions regarding specific topics or speakers will be appreciated. The chairman of the program committee is Josephine Hintgen, Public Schools, La Crosse, Wis. The president of the Association is A. H. Edgerton, University of Wisconsin, Madison.

Vocational Guidance in Japan

Since April last the Japanese Department of Education has been in consultation with the Bureau of Social Affairs of the Department of the Interior, the Boards of Education in the cities of Tokyo and Osaka and employment exchanges, with a view to the adoption of a concrete plan for the vocational guidance of young persons. At a conference held on 7 June at the official residence of the Minister of education, the following plan was adopted, and it was decided that instructions to this effect should be despatched to the prefectural authorities:

(1) Closer relations are to be established between elementary schools and employment exchanges for young persons, and between schools and parents or guardians, in the interest of intelligent choice of occupations.

(2) Special advisers devoting their whole time to the vocational guidance of young persons are to be appointed in cities and districts to give assistance not only in the selection of occupations, but also after employment.

(3) In the upper classes of elementary schools, a special curriculum is to be provided for vocational training, and the facilities for mental and other tests improved.

(4) Libraries and museums are to be utilized to greater effect, and special courses of vocational training given from time to time.

It is reported in this connection that a course of lectures on vocational guidance, beginning on 7 July, was organized by the Board of Education and the Bureau of Social Affairs of the City of Tokyo. Three teachers were selected from each of the higher elementary schools in the city to attend the course, which dealt with fundamental problems such as the policy and method of vocational guidance, vocational psychology, distribution of occupations, and mental and other tests.

Various means of preventing unemployment have been adopted in Japan, including public employment exchanges, governmental subsidies to public works undertaken by the leading municipalities, vocational schools, etc. But on account of the industrial depression, which has been intensified by the recent failure of several banks and large business houses, these methods have not been adequate to meet the situation. During 1924 approximately 450,000 persons found work through the public employment exchanges throughout the country, but in 1926 the number was reduced to about 240,000.

Mental tests have already been applied, with good results, to young persons seeking employment, but a general investigation of the occupations of adult workers such as is now proposed has never been undertaken on a large scale.

The new office will be formed under the direct control of the Bureau of Social Affairs, and the research will be carried out by experts specially appointed. The Bureau anticipates that the establishment of such an institution will create new opportunities for the work of employment exchanges in Japan.

Vocational Guidance in Austria

There are in Austria at the present time ten vocational guidance offices and six mental testing institutions, three official and three private. A seventh institute is being formed under the auspices of the Vienna Electric Tramways Company.

These establishments report considerable development in their work. In 1926 the mental test institute of the *Industrielle Bezirkskommission* at Vienna examined 4,846 apprentices. In 95% of the cases the results of the psychological examination corresponded with the progress made in courses of training. The Departments of Agriculture, Sylviculture, Commerce and Industry take a great interest in the work of the institution and are beginning to call upon it for assistance. The institute collaborates with the Medical Faculty of the Vienna Physiological Institute, which enables it to investigate physiological aptitudes. It possesses a training college for practical psychologists.

The Vienna Vocational Guidance Office in 1926 examined 15,964 persons and gave 42,934 consultations. The corresponding figures for 1922 were 4,433 examinations and 11,250 consultations.

Child Study Association of America

A One Day Conference on "Parent Education" will be held in New York City at the Hotel Pennsylvania, Wednesday, November 2nd, 1927, under the auspices of the Child Study Association of America, Inc.

The morning session will be devoted to the discussion of the Family and the Foundation of Character, with an introduction by Mrs. Howard S. Gans, the President of the Association. Dr. Will Russell, Dean, Teachers College, Columbia University, will be Chairman of this session. Mrs. Sidonie M. Gruenberg, Director of the Child Study Association, will speak on How Parents Establish Standards and Ideals; Dr. Lawson G. Lowrey, Director of the Institute of Child Guidance, on The Parent's Part in Sex-Social Guidance; Dr. Porter Lee, Director, New York School of Social Work, will discuss Parents and the Use of Leisure.

There will be a luncheon session at which The Home's Unconscious Influence on Individual Failure and Success will be taken up. Dr. Harry D. Kitson, Professor of Education, Teachers College, Columbia University, will speak on Home Situations as Sources of Conflict and The Need for Vocational Guidance and Adjustment.

The program for the evening session is Opportunities for Parents in Creative Citizenship; How Parents Can Determine the Character of Public Education by Dr. Frederick V. Robinson, President of the College of the City of New York; How Social and Economic Limitations of the Existing Home Affect Its Function in the Community by Dr. Ernest R. Groves, Professor of Social Science at Boston University; and the Parent's Contribution to the Child's Social Adjustment by Dr. Arthur H. Ruggles, Superintendent of the Butler Hospital, Providence, R. I.

Near East Boy Machinists and Mechanics

It is a part of the Golden Rule job that Near East Relief has undertaken with the orphans of the Near East to fit them, boys and girls alike, with trades and crafts by which they may support themselves when they leave the orphanages. When that time comes—and no child may stay in an orphanage after sixteen—the organization finds positions for them and keeps a watchful eye over them for a year so that they may not be exploited.

Naturally every sort of position is looked into, for it is no easy task

to place the hundreds of youngsters who step forth annually to look out for themselves. The occupations most lucrative in the localities where the children are to live receive prime attention. For example, there is a housing shortage in Greece on account of the tremendous influx of refugees after the Smyrna disaster. Near East Relief lads in Greece are taught the building trades, for there will be a demand for their knowledge for a long time to come.

In every area where Near East Relief operates there is a call for automobile and electrical mechanics, for everywhere the gas engine and electrically powered machinery are making their way. The tourist who has the good fortune to be piloted about Jerusalem by the Near East Relief representative there sees him nodding to many chauffeurs and many boys at work in garages. "All Near East Relief 'ex-orphans' ", he explains. "They are much liked here for their thoroughness and carefulness." The visitor to Armenia in the Caucasus observes boys driving tractors on the farms and is told that Near East Relief in cooperation with the government is teaching lads the use of modern farm machinery. In the machine shop at the huge orphanage at Leninakan, the largest in the world, he is shown a little one-passenger automobile, made, not assembled, by a lad with a real gift. Under the urge of a cup of gasoline it actually goes. Orphanage graduates are working with machinery in the government cotton mills. An orphanage-trained youth, now working in Cairo and a constant visitor at the Working Boys' Home, maintained in part by Near East Relief, has built a 1/25th horse power engine that is something more than a toy. At the orphanage at Antilyas in Syria where good cabinet making is emphasized the lads tend the woodworking machines. Near East Relief boys throughout the Holy Land install electric lights and telephones. On the island of Syra in the Aegean Sea is a Near East Relief Industrial School where all the machinery is run by the boys. The press given to Near East Relief by a group of New York printers and now set up in Athens is electrically powered and the "ex-orphans" are in charge.

It is somewhat startling to see the electric lights in Nazareth, to realize that automobiles everywhere are forcing camels to take the side of the road, but to the practically-minded welfare worker both sights are welcome because they indicate new openings for the youths who go out from American care. On December 4, Golden Rule Sunday, donations are made to aid the training of these luckless youngsters who must be launched into the world not by their families but as the philanthropic act of foreigners. They understand and are grateful for this assistance. Uncle Sam, they say, is their father, and they are eager to pass on to younger children Golden Rule help that comes to them from Golden Rule sacrifice overseas.

GET IT DONE

It isn't the job we intended to do
  Or the labor we've just begun,
That puts us right on the balance sheet,
  It's the work we have really done.

Our credit is built upon things we do,
  Our debit on things we shirk,
The man who totals the biggest plus
  Is the man who completes his work.

Good intentions do not pay our bills,
  It is easy enough to plan,
To wish is the play of an office boy,
  To do is the work of a man.

The Vocational Handbook

GIRLS WHO DID

By Helen Ferris and Virginia Moore

"Fills a need," says ANNE CARROLL MOORE of this book which the *New York Times* says "is written in a very wholesome spirit, and will be warmly welcomed to the libraries of all girls' schools and girls' clubs."

It is a "first aid" in planning a career. The interesting interviews with remarkable women will serve as an inspiration and a guide.

There are many professions to choose from and many interviews in the book. Nearly everybody at sometime has asked herself the question—"what shall I do with myself?" $2.50

Published by Dutton *New York*

OCCUPATIONAL STUDIES

Off Press October 1, 1927

A Survey of their Uses, Content, and Volume, and Bibliography, History, and Reviews, of Research-Pamphlet Series, 1920-1926

by

MAY ROGERS LANE, A.B., M.A.

Formerly, Research Secretary, White-Williams Foundation, Phila., Pa., and Supervisor of Occupational Research, Board of Education, Cleveland, O.

Recommended for

Counselors, and Students of Vocational Guidance;
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